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op5 Monitor User Manual

Configuration

The Configuration menu item in op5 Monitor is all about configuring op5 Monitor.

Everything from your own password to hosts, services, notification escalations and so on is configurable here.

The Configuration head line is divided into the following parts

- View config
- Change password
- Backup / Restore
- Host wizard

Configure will be covered in the chapter [op5 Monitor Configuration Tool](#).

Backup and Restore

About

The op5 Monitor GUI has got a built-in backup feature. This is not supposed to be a replacement to op5-backup.



The configuration backup is only backing up the op5 Monitor configuration, nothing else.

Table of Content

- [About](#)
- [Backing up the configuration](#)
- [Backup/Restore actions](#)
- [Restoring a configuration backup](#)

Backing up the configuration

To backup your op5 Monitor configuration

1. Click Backup/Restore in the main menu.



2. Click [Save your current op5 Monitor configuration](#).



Now your backup is created and can be restored at any time you like.

Backup/Restore

[Save your current op5 Monitor configuration](#)

BACKUPS	ACTIONS
webconfig-pre-4.0.7-upgrade-2009-09-01_11.35	
webconfig-pre-4.0.7-upgrade-2009-09-01_11.19	

Click the backup archive name to download and save the backup archive somewhere else.

Backup/Restore actions

In the list of backups the second column is called **ACTIONS**. This is the functions you will find there, from the left to the right:
View what files are included in the backup.

Restore the backup

Delete the backup.

Restoring a configuration backup

Click Backup/Restore in the main menu.



Click restor icon on the configuration backup you like to restore.



Now the backup has been restored.

My account

About

My account contains a few settings, including the possibility to change your password.
Here you may set

- Pagination behavior
- How to display passive checks
- What skin to use in the GUI
- Keyboard commands used in the GUI.
- Listview column settings

My Account is accessed through the menu or by clicking on your username in the upper right corner.



Table of Content

- About
- Changing my account settings
- Pagination behavior
- The way passive checks are displayed
- What skin to use in the GUI
- Keyboard commands used in the GUI
- Change popup behavior
- Set URL target
- Changing your password
- Columns in list view

Changing my account settings

1. Click **My account** in the **configuration** menu
2. Make the changes you need to do (password is saved separately).
3. Click **Save**.

Pagination behavior

Paginations are used in almost every view under the Monitoring section. You can set pagination

- limit
- step

pagination settings

Setting	Description
limit	Sets the maximum number of items to display on each page
step	Sets the value is used to generate drop-down for nr of items per page to show.

The way passive checks are displayed

A service which is only receiving passive check results is normally displayed as inactive. This gives you an icon looking like this:



Here you may change how that service is displayed. To change this behavior you only need to set the **Show passive as Active** option. Then the passive only checks will appear as they were active.

What skin to use in the GUI

In op5 Monitor you are able to create your own skin to use in the GUI. How to create your own skin is described in the op5 Monitor administrator manual.

Here you may chose what skin you like to use.

Keyboard commands used in the GUI

You may use your own shortcuts to your keyboard commands. You need to set one or more modifier key plus any other key. Possible Modifier keys are

- Alt
- Shift
- Ctrl

Modifier keys should be entered in alphabetical order.

Add a combination of keys with a + sign between like

Alt+Shift+f

without any spaces. All keys are case insensitive.

Change popup behavior

You can select to disable the graph popup when hovering the mouse over a graph icon. It is also possible to change the popup delay.

Set URL target

Select how you want a URL to open. You can choose to open in a new window or in the same window.

Changing your password

1. Click **Change password** in the top right corner of the **My account** page
2. Type current password and the new password two times

Change password

Current Password	*****
New Password	*****
Confirm Password	*****
Change password	

3. Click **Change password**.

Next time you login you have to use the new password.

Columns in list view

Here you can modify which columns that should be shown in the corresponding view. For more information about this please see: [Customizing listview columns](#).

View config

About

View config is an option to get a table view of the configuration. This can be used for quickly viewing the configuration.

Table of Content
• About
• Viewing config

Viewing config

In this example we are going to view the hostgroups ordered by description.

1. Click **View config** in the configuration menu.

The screenshot shows the 'View Config' interface. At the top, there is a header bar with a 'View Config' button. Below it, there are two input fields: 'Object type' set to 'Hosts' and a 'Enter text to filter' field. The main area is a table titled 'Hosts' with the following columns: HOST NAME, ALIAS/DESCRIPTION, ADDRESS, PARENT HOSTS, and MAX. CHECK ATTEMPTS. The table contains two rows of data:

HOST NAME	ALIAS/DESCRIPTION	ADDRESS	PARENT HOSTS	MAX. CHECK ATTEMPTS
172.27.76.202	172.27.76.202	172.27.76.202	router1	5
down-1	down-1	1.2.3.4	switch1	5

As default hosts are shown.

2. Change **Object type** to host groups

The screenshot shows the 'View Config' interface with the 'Object type' dropdown changed to 'Host Groups'. The rest of the interface remains the same as the previous screenshot.

Geomap

Geomap

Using Geomap

About

The Geomap part of op5 monitor is a geographical map that uses **Open Street Map**, **Google Maps** and **Cloud made maps**. To be able to get real-time information from the Geomap your client must have access to Internet.

However it is also possible to choose pre-generated maps if a internet connection on the computer that is viewing the map is not available. It is also possible to choose Google Maps as the preferred map



It's only the client that needs access to the internet.

Table of Content

- About
- Map type
- Locations
 - Adding a location
- Links
 - Adding a link

Map type

As mentioned above, there are three map types available:

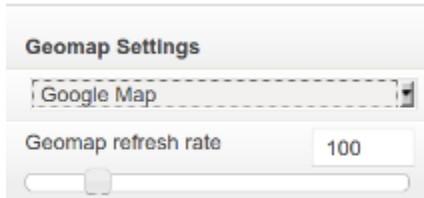
- Open Streetmap
- Google Maps
- Cloud made maps from Open Streetmap

To start configuring the map type for Geomap, follow the steps below:

1. Click **Geomap** in the monitoring menu
2. Select **Settings** in the top right corner



Besides the map type you can also set the refresh rate of the map with the slider from left to right, or manually enter the interval in seconds.



3. Select what map type you want to use:



4. Click on **Settings** again to save the setting and refresh the map.

Locations

Before Geomap is useful you have to add locations to the map. Each location can be associated with an object. The following object types can be used:

- Host
- Service
- Host Group
- Service Group

Adding a location

Here we will add a new location. First we need to locate where on the map we want to put the location. Then we save the location with some basic settings.

To add the location

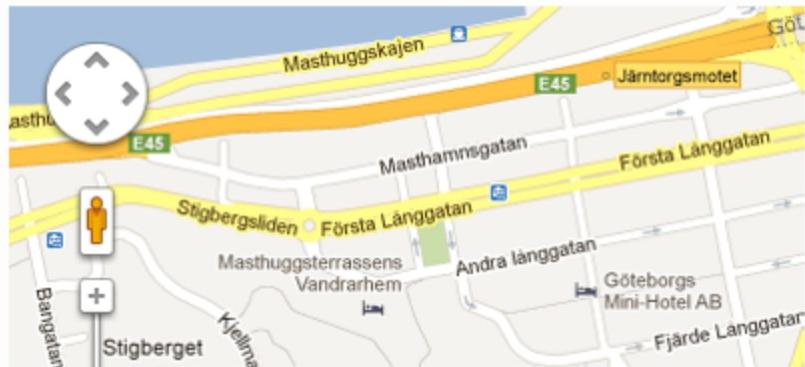
1. Open up the Geomap from the monitoring menu.
2. Click on edit in the upper left corner, just above the map.

Geomap sections [Edit](#) [View](#) [Settings](#)

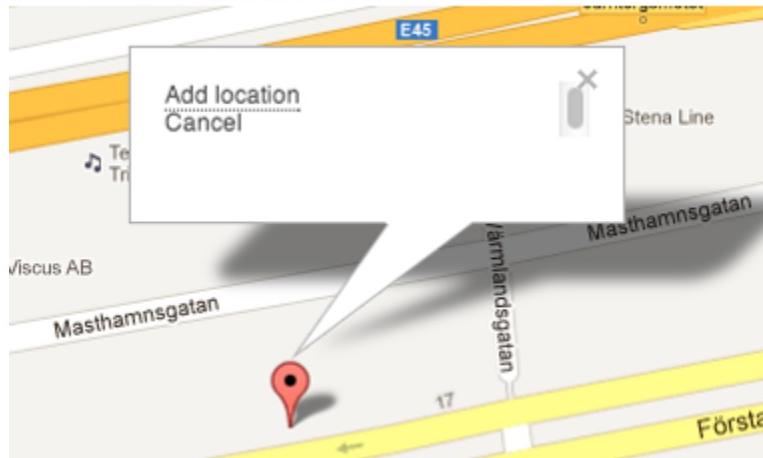


[Search](#)

Double click to add a location. In that form, you have free hands to manu...



3. Double click on the map to place your location
4. A bubble will appear on the location, select 'Add location':



Enter the variables for this locations and select type, then the object you want to link to this location. You can also enter the exact latitude and longitude here:

Add location

Label:
New location

Address:
Första Långgatan 19

Description:
op5 Gothenburg Office

Latitude,langitude:
57.69969639999999,11.9450018

Object type:
Host

Object name:
winserver_hyperv

Save

Cancel

5. Click on **Save** to create the location.

Links

When you have added a couple of locations to your Geomap you might want to add a link between them. This can easily be done by associating a service to a so called link object.

Adding a link

Here we will use two locations called:

- Gothenburg
- Stockholm

The locations listed above are associated with one host each.

Now we will add a link between the two locations and associate it with a service that will symbolize the link between the both locations.

To add the link

1. Open up the **Geomap** from the menu. Click on **Edit** above the map:

Geomap sections [Edit](#) [View](#) [Settings](#)



[Search](#)

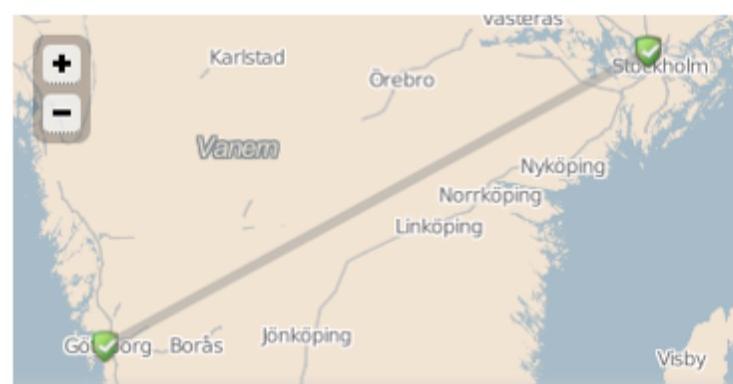
Double click to add a location. In that form, you have free hands to manu.



2. Click on one of the locations that you want to link together and select **Link**:



3. Choose the second location and select **Link** in the bubble on that location. This will create grey line between the two locations.



4. Click on the grey line. Click on **Edit** in the pop-up bubble.



- a. Enter a description.
 - b. Select a type.
 - c. Select the object you want the link to represent.
5. Click **Save** to save your link.



Monitoring

Monitoring

The monitoring section in the web menu is related to problem management and status of your network. It is here that you will spend most of your time when using op5 Monitor. In the monitoring section you can

- view host and service problems
- view performance graphs
- execute service and host commands
- show objects on maps
- handle schedule downtime.

This chapter will give you information about the most commonly used parts of the monitoring part of op5 Monitor.

Business Service Monitoring

About

The business services view is designed to combine your IT monitoring and your business service management (BSM) to give an overview of the applications and/or services that your organisation is providing either to customers or internally.

Table of Content
<ul style="list-style-type: none"> • About • Viewing Business Services

Viewing Business Services

To access the Business Services view click on **Business Services** in the main menu.

 **Business Services**

The Business Services view gives an easy overview of how your Business Processes are working.

The screenshot shows the op5 Monitor interface. At the top, there are three main sections: "Business Object" (with a red circle around the number 1), "Rule" (with a red circle around the number 2), and "Actions" (with a red circle around the number 3). Below these are two service entries: "Reference services" (status OK) and "Test-Drive" (status Best state). Each entry has a set of icons for actions.

For better viewing the following screenshot has been divided in to two pieces.

Last check	Duration	Status information
2014-03-18 10:46:23	23m ago	Require 4 OK(s), got: 3 OK(s), 0 WARNING(s), 1 CRITICAL(s), 0 UNKNOWN(s)
2014-03-18 10:46:23	3m ago	The best state is WARNING
2014-03-18 10:46:23	3m ago	This is the random state CRITICAL

Nr	Description
1	<p>Business Object List all the Business service objects. An object can be one of the following items</p> <ul style="list-style-type: none"> • Group • Service • Host. • Random value • Constant value
2	<p>Rule Shows which rule is applied to the group. For more information about the different rules see <i>Rules types</i> on page 156 in op5 Administrator manual.</p>
3	<p>Actions A list of action buttons. Click the icons to</p> <ul style="list-style-type: none"> • Look up service/host in op5 monitor • Go to the configuration for the host or service • Add sub element, only available on groups • Edit object • Remove object • Clone object, only available on groups
4	<p>Last check. This will show when the object was last checked. The time on a group is the time for when the last sub element was checked.</p>
5	<p>Duration Displays how long the group or service has been in it's current state.</p>
6	<p>Status Information Displays in what state the current group is in. For hosts and services the output from the op5 monitor check is displayed.</p>

Dokuwiki

About

op5 Monitor comes with an dokuwiki that gives you a great way to document both your environment and things related to your monitored systems.

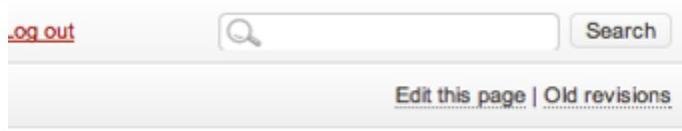
Of course you can also use this dokuwiki to save other kind of related information in too. This makes it easy to reach and you will ensure you have all documentation in the same place.

Table of Content

- About
- Editing a wiki page
- Formatting a wiki page

Editing a wiki page

To edit an existing page, go to the page you want to edit and select 'Edit this page' in the top right corner. A backup of the previous page will automatically be created.



Formatting a wiki page

You can format your text by using wiki markup. This consists of normal characters like asterisks, single quotes or equal signs which have a special function in the wiki, sometimes depending on their position. For example, to format a word in italic, you include it in two pairs of single quotes like "this".

Description	you type
<i>Italic</i>	//italic//
Bold	*bold*
<u>Underline</u>	_underline_
<i>Bold & Italic</i>	*/bold & italic/*
Headings of different levels	==== Headline Level 3 ==== ==== Headline Level 4 ==== == Headline Level 5 == Note: An article with 3 or more headings automatically creates a table of contents.

For more information about formatting text please go to <https://www.dokuwiki.org/wiki:syntax>. More information about how to use the dokuwiki in op5 Monitor can be found in op5 Monitor Administrator Manual or at <http://docuwiki.net/>

Host and Service Groups

About

A host or service group is a collection of hosts or services that has something in common.

It can be for example location, function or hardware type.

Table of Content

- About
- Using Host groups
 - Host group commands
 - Host group reporting
- Using Service groups
 - Service group commands
 - Service group reporting

Using Host groups

A host is normally placed in one or more host groups. A host group can contains any kind of hosts in any way you want to.

You can use host groups to:

- group hosts from the same geographic area in the same host group.
- put the same type of hosts in the same host group.
- place all hosts in a special service in the same group.
- place a customer's host in a host group of its own.

Beside just being a way of sorting hosts in you can use host groups to decide what user is supposed to be able to see what hosts. More about that in [Access rights on page Main Objects](#).

Using host groups makes it easy to find hosts that got something in common. Let us say you have a whole bunch of Citrix servers you can show just these servers in a listview.

Host group commands

By clicking on the "Action" icon on a host group you will get a menu to control the host group.



From this menu you can:

- Schedule downtime for all host and/or services in the host group.
- Enable and disable notifications for all hosts and/or services in the host group.
- Enable and disable active checks for all hosts and/or services in the host group.
- Go directly to the configuration for this host group.

Hostgroup Commands for: DNS servers (DNS servers)

	Schedule downtime for all hosts in this hostgroup
	Schedule downtime for all services in this hostgroup
	Enable notifications for all hosts in this hostgroup
	Disable notifications for all hosts in this hostgroup
	Enable notifications for all services in this hostgroup
	Disable notifications for all services in this hostgroup
	Enable active checks of all hosts in this hostgroup
	Disable active checks of all hosts in this hostgroup
	Enable active checks of all services in this hostgroup
	Disable active checks of all services in this hostgroup

Host group reporting

From the host group command menu (see above) there are also a couple of reporting tools

[Status detail](#) [Status overview](#) [Availability](#) [Alert history](#)

From this menu you can view Availability reports and Alert history for the host group.

Using Service groups

One of the most useful things with service groups is to group them by what useful service they are giving the users.

A service group example

Let us say you have a mail service for your customers. This mail service needs the following components to be working as it should:

- DNS
- MTA
- IMAP-/POP-server
- Webmail
- Storage

On the hosts listed above there are services that must be working otherwise your customer will not be able to use the email service you shall deliver to them.

Place all the important services in one service group and you can then easily see if an alert and/or notification says anything about the email service in the example.

Service group commands

By clicking on a service group name (the name within parentheses) in any of the service group views you will get a menu to control the service group.

Servicegroup Commands for: Web Services (Web_services)	
	Schedule downtime for all hosts in this servicegroup
	Schedule downtime for all services in this servicegroup
	Enable notifications for all hosts in this servicegroup
	Disable notifications for all hosts in this servicegroup
	Enable notifications for all services in this servicegroup
	Disable notifications for all services in this servicegroup
	Enable active checks of all hosts in this servicegroup
	Disable active checks of all hosts in this servicegroup
	Enable active checks of all services in this servicegroup
	Disable active checks of all services in this servicegroup

From this menu you can:

- Schedule downtime for all host and/or services in the service group.
- Enable and disable notifications for all hosts and/or services in the service group.
- Enable and disable active checks for all hosts and/or services in the service group.
- Go directly to the configuration for this service group.

Service group reporting

From the service group command menu (see above) there are also a couple of reporting tools

Status detail	Status overview	Availability	Alert history

From this menu you can view Availability reports and Alert history for the service group.

Another good way to use service groups is to create Service Level Agreement (SLA) reports based on service groups. If you take the example above and create a SLA report from it you will directly see if you can deliver your service the way you promised your customers.

Hosts and services

About

Hosts and services are the objects that are monitored by op5 Monitor.

Table of Content
<ul style="list-style-type: none"> • About • A host in detail • Page links • Host information header • Host state information • Host commands • Comments • A service in detail • Page links • Service header information • Service state information • Service commands • Comments

A host in detail

A host can be any kind of network device, virtual device and other objects that you might reach from the op5 Monitor server. Let us take a look at the Host information view and see what parts it is built upon. In the coming sections we will go through each part and

learn how they can be used.

Host	Comments	Status detail	Alert history	Event log	Alert histogram	Availability report	Notifications																								
Address		Parents		Member of		Contact groups	(1)																								
172.27.98.2	ref-mon-01			No hostgroups		OC																									
Configure Show performance graph ref-win-01.dev.op5.com																															
Current status Up (for 191d 21h 39m 33s) (3)																															
Status information OK - 172.27.98.2 responds to ICMP. Packet 1, rtt 0.672ms																															
Performance data <table border="1"> <thead> <tr> <th>Data source</th> <th>Value</th> <th>Warn</th> <th>Crit</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>pkt</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>5</td> </tr> <tr> <td>rta</td> <td>0.672</td> <td>2000.000</td> <td>2000.000</td> <td></td> <td></td> </tr> <tr> <td>pl</td> <td>0 %</td> <td>95</td> <td>100</td> <td>0 %</td> <td>100 %</td> </tr> </tbody> </table>								Data source	Value	Warn	Crit	Min	Max	pkt	1	0	0	0	5	rta	0.672	2000.000	2000.000			pl	0 %	95	100	0 %	100 %
Data source	Value	Warn	Crit	Min	Max																										
pkt	1	0	0	0	5																										
rta	0.672	2000.000	2000.000																												
pl	0 %	95	100	0 %	100 %																										
Current attempt 1/3 (hard) Last check time 2014-03-18 10:03:40 Check source ref-mon-01 (local) Check type Active Check latency / duration 0.001 / 0.004 seconds Next scheduled check 2014-03-18 10:08:40 Last state change 2013-11-06 12:25:34 Last notification N/A (Notifications: 0) Is this host flapping? No (0.00% state change) In scheduled downtime? No Active checks Enabled Passive checks Enabled Observing Enabled Notifications Enabled Event handler Enabled Flap detection Enabled																															
Submit a host comment Delete all host comments (5)																															
Comments																															

The table below describes each part of the Host information view briefly.

Nr	Part	Description
1	Page links	Quick links to other information about the host <ul style="list-style-type: none"> • Status detail list all services on this host. • Alert history show the alert log if the host. • Alert histogram show a graphical view, or trend, of the problems on the host. • Availability report of the host. • Notifications shows all notifications that has been sent out about this host.
2	Host information header	Displays brief information about the host and its surroundings like <ul style="list-style-type: none"> • Host name and address. • Parent host. • Hostgroup membership • Extra actions and notes. • Links to configure and graphs. • Host notifications.

3	Host state information	Here you can see status information for the host like <ul style="list-style-type: none"> • Current status. • Current attempt. • Last state changes and notification. • What is enabled or not on this host.
4	Host commands	Here you can perform different commands for the host and/or all services on that host.
5	Comments	Manually added comments and comments from the system are shown here.

Page links

The page links gives you a couple of shortcuts to more information about this host and its services.

Host	Comments	Status detail	Alert history	Event log	Alert histogram	Ava...
------	----------	---------------	---------------	-----------	-----------------	--------

Host information header

Here you will get a short summary of the host.

Address	Parents	Member of	Contact groups
172.27.96.2	ref-mon-01	No hostgroups	QC
 Configure Show performance graph			

The host header information contains

- the host address.
- the parent host.
- what host groups it's member of.
- what group will get the notifications for this host.
- links to extra service actions, service notes and the performance graphs.
- a link to the object in the configuration GUI.

Host state information

In this view you get all kind of status information about the host. This is the most detailed view you can get over a host.

Current status	 Up (for 131d 21h 55m 27s)				
Status information	OK - 172.27.96.2 responds to ICMP. Packet 1, rtt 0.172ms				
Performance data	Data source	Value	Warn	Crit	Min
	pkt	1	0	0	0
	rta	0.172	2000.000	2000.000	
Performance data	pl	0 %	95	100	0 %
Current attempt	1/3 (hard)				
Last check time	2014-03-18 10:18:40				
Check source	ref-mon-01 (local)				
Check type	 Active				
Check latency / duration	0.001 / 0.001 seconds				
Next scheduled check	2014-03-18 10:23:40				
Last state change	2013-11-06 12:25:34				
Last notification	N/A (Notifications: 0)				
Is this host flapping?	 No (0.00% state change)				
In scheduled downtime?	 No				
Active checks	 Enabled				
Passive checks	 Enabled				

Host commands

The host commands part gives you a various commands to handle the host. Here you can

- locate the host in a status map
- add a host comment
- re-schedule the next check for this host
- disable and enable active and passive checks
- disable and enable notifications
- schedule downtime
- disable and enable event handlers.
- send custom notifications

Host Commands	
	Locate host on map
	Submit a host comment
	Disable active checks of this host
	Re-schedule next host check
	Submit passive check result for this host
	Stop accepting passive checks for this host
	Stop obsessing over this host
	Disable notifications for this host
	Send custom notification
	Schedule downtime for this host
	Disable notifications for all services on this host
	Enable notifications for all services on this host
	Schedule a check of all services on this host
	Disable checks of all services on this host
	Enable checks of all services on this host
	Disable event handler for this host
	Disable flap detection for this host

Comments

There are two types of comments:

- automatically added
- manually added

Automatically added comments can be:

- acknowledged comments
- scheduled downtime comments

As a manually added comment you can type in almost anything you like.

[Submit a host comment](#)
 [Delete all host comments](#)

Comments

No comments yet

[View in listview](#)

Comments are designed to be short texts. If you would like to add documentation, longer descriptions and so on you should consider using the Dokupuki that is included in op5 Monitor.

A service in detail

A service is practically anything that can be measured. A service must be connected to a host.

Let us take a look at the Service information view and see what parts it is built upon. In the coming sections we will go through each part and learn how they can be used.

The picture below shows the Service information view.

Nr	Part	Description
1	Page links	<p>Quick links to other information about the service and the host it is connected to.</p> <ul style="list-style-type: none"> • Information for this host. • Status details for the host. • Status detail list all services on this host. • Alert history show the alert log if the service. • Alert histogram show a graphical view, or trend, of the problems on the service. • Availability report of the service. • Notifications shows all notifications that has been sent out about this service.
2	Service information header	<p>Displays brief information about the service, host and its surroundings like</p> <ul style="list-style-type: none"> • Host name and address. • What service groups the service belongs to. • Extra actions and notes. • Links to configuration and graphs.
3	Service state information	<p>Here you can see status information for the service like</p> <ul style="list-style-type: none"> • Current status. • Current attempt. • Last state changes and notification. • What is enabled or not on this service.
4	Service commands	<p>Here you can perform different commands for the service.</p>
5	Comments	<p>These are comments you put there either by adding a scheduled downtime or just a comment of it own.</p>

Submit a service comment Delete all service comments **5**

Comments

No comments yet

[View in listview](#)

Page links

The page links gives you a couple of short cuts to more information about this service and the host it is connected to.

Service	Comments	Information for host	Status detail for host	Alert history
---------	----------	----------------------	------------------------	---------------

Service header information

Here you will get a short summary of the service.

On host	Address	Member of	Contact groups	C
ref-mon-01 (OP5 Monitor Server master 01)	172.27.96.6	No servicegroups	support-group	

[Configure](#) [Show performance graph](#)

Here you may see things like

- What host it belongs to.
- The service groups it is a member of.
- What contact groups that will get the notifications.
- Service notes.
- Links to extra service actions, service notes and performance graphs.
- A link to the object in the configuration GUI.

Service state information

In this view you get all kind of status information about the host. This is the most detailed view you can get over a service.

Current status	 Ok (for 11d 4h 57m 5s)																																																																																																
Status information	Uptime: 1108419 Threads: 2 Questions: 721950 Slow queries: 2 Opens: 16047 Flush tables: 1 Open tables: 32 Queries per second avg: 0.651																																																																																																
Performance data	<table border="1"> <thead> <tr> <th>Data source</th><th>Value</th><th>Warn</th><th>Crit</th><th>Min</th><th>Max</th></tr> </thead> <tbody> <tr><td>Connections</td><td>99828 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Open_files</td><td>52</td><td></td><td></td><td></td><td></td></tr> <tr><td>Open_tables</td><td>32</td><td></td><td></td><td></td><td></td></tr> <tr><td>Qcache_free_memory</td><td>0</td><td></td><td></td><td></td><td></td></tr> <tr><td>Qcache_hits</td><td>0 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Qcache_inserts</td><td>0 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Qcache_lowmem_prunes</td><td>0 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Qcache_not_cached</td><td>0 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Qcache_queries_in_cache</td><td>0</td><td></td><td></td><td></td><td></td></tr> <tr><td>Queries</td><td>721950 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Questions</td><td>721830 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Table_locks_waited</td><td>0 c</td><td></td><td></td><td></td><td></td></tr> <tr><td>Threads_connected</td><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>Threads_running</td><td>1</td><td></td><td></td><td></td><td></td></tr> <tr><td>Uptime</td><td>1108419 c</td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Data source	Value	Warn	Crit	Min	Max	Connections	99828 c					Open_files	52					Open_tables	32					Qcache_free_memory	0					Qcache_hits	0 c					Qcache_inserts	0 c					Qcache_lowmem_prunes	0 c					Qcache_not_cached	0 c					Qcache_queries_in_cache	0					Queries	721950 c					Questions	721830 c					Table_locks_waited	0 c					Threads_connected	2					Threads_running	1					Uptime	1108419 c				
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Uptime	1108419 c																																																																																																
Current attempt	1/3 (hard)																																																																																																

Service commands

The service commands part gives you a various commands to handle the service. Here you can

- Disable and enable active and passive checks
- Reschedule the service check
- Disable and enable notifications
- Schedule downtime
- Disable and enable event handlers.
- Submit a service comment
- Send custom notification

Service Commands	
	Submit a service comment
	Disable active checks of this service
	Re-schedule next service check
	Submit passive check result for this service
	Stop accepting passive checks for this service
	Stop obsessing over this service
	Disable notifications for this service
	Send custom notification
	Schedule downtime for this service
	Disable event handler for this service
	Disable flap detection for this service

Comments

There are two types of comments:

- Automatically added
- Manually added
- Automatically added comments can be
 - acknowledged comments
 - scheduled downtime comments

As a manually added comment you can type in almost anything you like.

Comments
No comments yet
View in listview

Comments are designed to be short texts. If you would like to add documentation, longer descriptions and so on you should consider using the [Dokuwiki](#) that is included in op5 Monitor.

Hyper Map

About

Hyper map visualises the relationships between hosts in a scrollable map.

Table of Content
<ul style="list-style-type: none"> About Hyper Map

Hyper Map

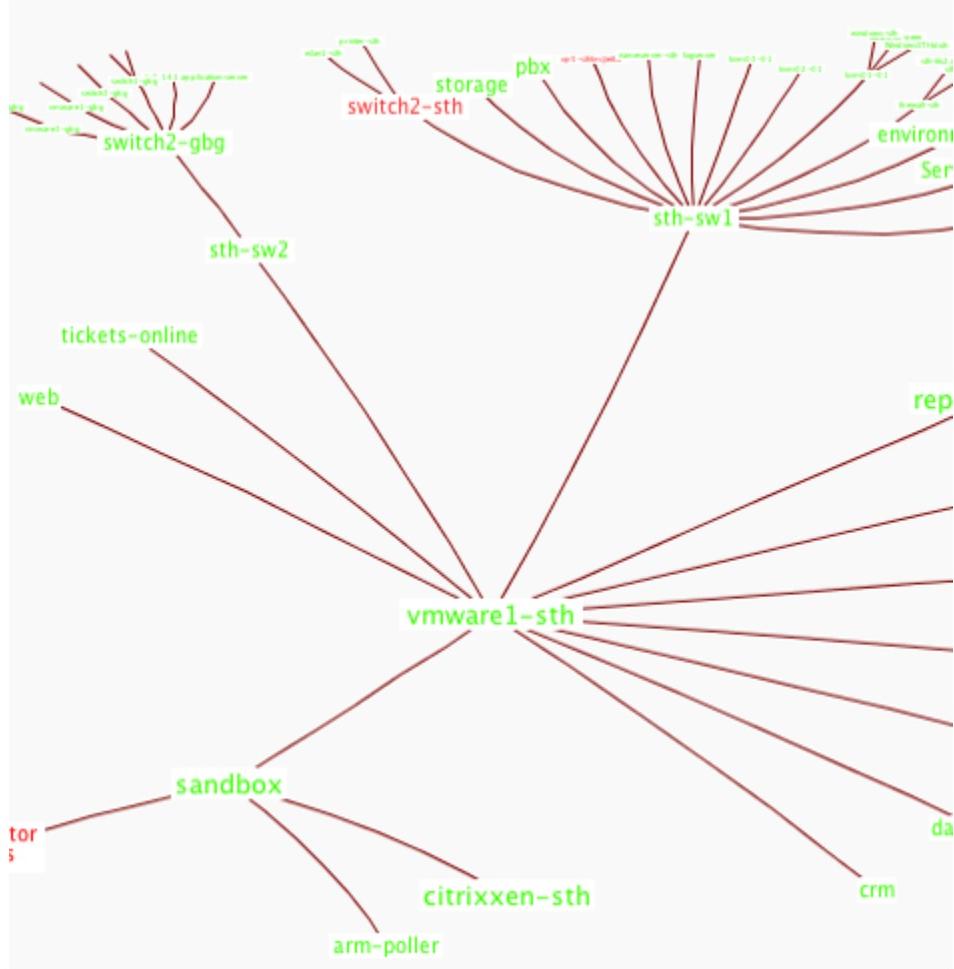
To access the Hyper Map click on the icon in the menu

Hyper Map

You need to accept the java-applet to run.

This map is autogenerated by the parent/child relationships of the hosts. If a host does not have any parent it is connected directly to the "op5 Monitor Process".

To navigate in the hyper map use the mouse to drag the map in the direction you want to go.



Monitoring Agents

About

op5 Monitor can do a lot on its own. But to get the most out of op5 monitor you should use our agents.

The following agents are available from the download section in the support section at <http://www.op5.com/get-op5-monitor/download/#Agents-tab>.

- op5 NSClient++
 - NRPE
 - MRTGEXT
 - Windows syslog Agent
 - Nagstamon

Table of Content

- About
 - Agent Description

Agent Description

The table describes each agent briefly

Name	Description
------	-------------

op5 NSClient++	<p>This is the agent used for monitoring Microsoft Windows operating systems.</p> <p>You can use it to monitor things like</p> <ul style="list-style-type: none"> • CPU, memory and disk usage • services, windows events and files <p>You can also use the built-in NRPE support to create your own commands for op5 NSClient++</p>
NRPE	<p>This is the most commonly used agent for Linux and Unix systems. NRPE is used to execute plugins on an remote machine and then send the results back to op5 Monitor.</p> <p>You may also send arguments to the NRPE daemon on the remote machine to make it a bit more flexible. This must be turned on before you use the feature.</p>
MRTGEXT	<p>MRTGEXT was originally written as an NLM for Novel Netware to obtain values used with the widely known MRTG, but it can also be used to poll values from op5 Monitor.</p>
op5 Syslog Agent	<p>op5 Syslog Agent runs as a service under Windows. It formats all types of Windows Event log entries into syslog format and sends them to a syslog host (The op5 Monitor server or the op5 LogServer).</p> <p>The agent can also forward plaintext log-files.</p>
Nagstamon	<p>Nagstamon is a status monitor for the desktop. It can connect to several servers and resides in the systray or as a floating statusbar at the desktop showing a brief summary of critical, warning, unknown, unreachable and down hosts and services and pops up a detailed status overview when moving the mouse pointer over it</p>

More information about the agents can be found in the op5 Monitor Administrator Manual.

Parenting

About

Parenting in op5 Monitor is used to determine whether a host is down or unreachable.

Table of Content
• About
• Description

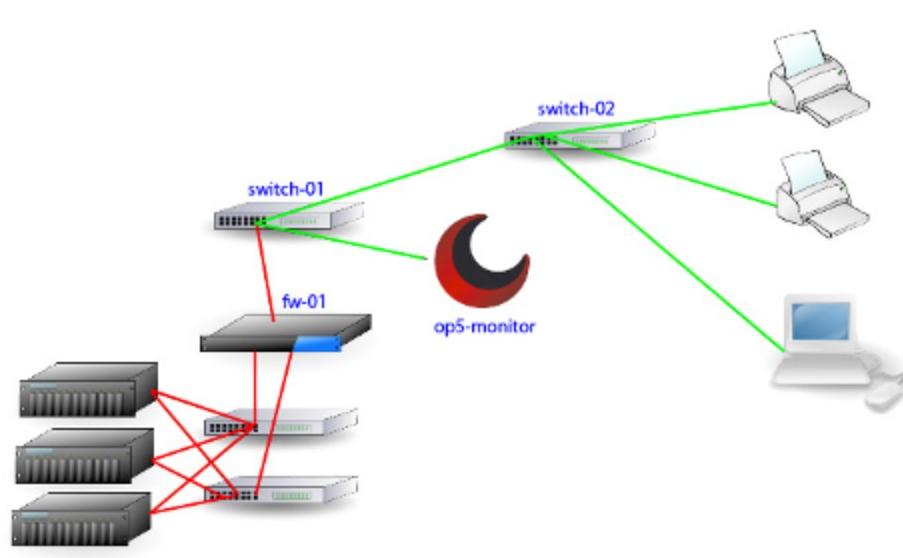
Description

A host is...

down if the host is the first one it can not reach in the "tree"
unreachable if the host is after the host described above.

This example describes how the parenting works in practice

The picture below shows how a network looks like from the monitor servers point of view.



As you can see everything starts with the op5-monitor server. If fw-01 is down, as shown in the picture above, all child hosts of fw-01 is considered as unreachable.

The example above shows that you can use parenting to exclude a lot of unnecessary alerts and notifications. This because you can tell op5 Monitor not to send any notifications for a host that is unreachable. That means you will only get notification about fw-01 in this case, not the hosts "below" fw-01.

Problem handling

About

Much of your work with op5 Monitor is about problem handling. In the beginning when you start working with op5 Monitor normally most of the time is about configuring, tweaking and fixing problems. After a while you will see that you can start working in a proactive way instead of how it used to be.

In this section we will take a look at how you can work effectively with op5 Monitor as a great help during your problem handling.

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- About
- Hard and soft states
- Alerts and notifications management
- Unhandled problems view
- Acknowledge problems
 - Acknowledging a problem in the GUI
 - Acknowledging a problem by sms
 - Removing an acknowledge
 - Removing multiple acknowledgements
- Schedule downtime
 - Viewing scheduled downtime
 - Scheduling downtime
 - Remove a scheduled downtime
- Schedule recurring downtime
 - Scheduling a recurring downtime
 - Viewing your recurring downtime schedules
 - Editing a recurring downtime
 - Deleting a recurring downtime

Hard and soft states

A problem is classified as a **soft** problem until the number of checks has reached the configured `max_check_attempts` value. When `max_check_attempts` is reached the problem is reclassified as **hard** and normally op5 Monitor will send out a notification about the problem. **Soft** problems do not result in a notification.

Alerts and notifications management

Alerts and notifications are two of the most important things for you as a system administrator who depends on a monitoring tool like op5 Monitor.

Alerts, alarm and notifications are called different things in most monitoring system. In op5 Monitor we define them like this:

	Description
--	-------------

Alerts	An alert is when any kind of status changes on a host or a service, like: <ul style="list-style-type: none">• host up• host down• service critical• service okand so on.
Notifications	<p>Notifications are the messages sent out to the contacts associated with the object the notification is sent about.</p> <p>Notifications are sent out on state changes. A notification is sent during one of the following alerts:</p> <ul style="list-style-type: none">• any service or host problem or recovery• acknowledgements• flapping started, stopped and disabled• downtime started, stopped and canceled <p>Notifications can be sent by almost anything. The following are included by default in op5 Monitor:</p> <ul style="list-style-type: none">• email• sms• dial up <p>Of course there are a lot of other ways to send notifications like sending them to a database, ticket handling system etc.</p>

An alert can happen any time and it does not necessarily need to be associated with a notification but a notification is always associated with an alert.

Unhandled problems view

As you can see in the GUI there are many views in op5 Monitor to show you host and service status. One of the most useful, for a system administrator, is the unhandled problems view.

Services	Services:	163	0	2	57	104	0
Host Name		Service		Status	Actions	Last Checked	
	VQ - Site 2		Step 2 - End Call				2013-04-11 08:53:5
	amazon-ec2-vm-2		Syslog process				2013-04-11 08:56:2
	ap01-gbg		Connected Clients				2013-04-11 08:56:2
	ap01-sth		Connected Clients				2013-04-11 08:56:2
	ap02-eth		Connected Clients				2013-04-11 08:56:2
	ap03-sth		Connected Clients				2013-04-11 08:56:2
	ap04-sth		Connected Clients				2013-04-11 08:56:2
	crm		Cron process				2013-04-11 08:56:2
			Disk usage /				2013-04-11 08:52:2
			Syslog process				2013-04-11 08:53:0
			System Load				2013-04-11 08:53:2
			Total processes				2013-04-11 08:53:5

In this view you will only find unacknowledged problems.
This view can be accessed from the quickbar menu.



Acknowledge problems

When a new problem is discovered you need to take care of it. The first thing you should do is to acknowledge the problem. There are

many ways to acknowledge a problem.

When you acknowledge a problem you will:

- make sure no more notifications are sent out.
- show other users that you have seen the problem and are aware of it.

We will here take a look at two of them, acknowledge by:

- the GUI
- SMS

Acknowledging a problem in the GUI

The most common way to acknowledge a problem is to do it in the GUI. This is easy and you will also be able to add a comment to your acknowledgement. It is also the same routine no matter if it is a host or service problem you are about to acknowledge.

To acknowledge a host problem:

1. Look up the host in the GUI and click on the host name.
2. Click on **Acknowledge This host problem** in Service commands.



3. Fill in a comment and click **Submit**.

The screenshot shows a form for acknowledging a host named "win-server1". The form includes several checkboxes:

- Host**: win-server1
- Sticky**:
- Notify**:
- Persistent**:
- Author**: monitor

A text input field labeled "Comment" is present. Below the checkboxes is another checkbox labeled "Acknowledge any problems on services too" which is checked. At the bottom are two buttons: "Submit" and "Reset".

With the **Sticky** options all notifications are suppressed until the problem goes to OK or UP. Uncheck this box to remove the acknowledgement even when the problem goes to another problemstate, for example from WARNING to CRITICAL or from CRITICAL to WARNING. Use the **Notify** checkbox to send out a notification that this problem has been acknowledged. With every acknowledgement a comment is added to the object. If you would like this comment to remain after the problem has returned to OK or UP use the **Persistent** checkbox.

4. Click **Done** and you will be directed back to the host you were on when you started.

Acknowledging a problem by sms

If you have received your notification by sms you can acknowledge it by sending a sms back to the op5 Monitor server.
To acknowledge a problem by sms

1. Pick up the notification sms in your mobile phone.
2. Forward it to the op5 Monitor server (you must forward the complete sms just the way it looked like when you got it).

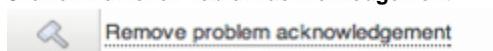
If you now take a look at the host or service you will see that it has been acknowledged and a small comment is placed in the comment part for the object.

Removing an acknowledge

Sometimes you might need to remove an acknowledgement. Maybe you acknowledged the wrong problem or you for some reason need to stop working on it but you like more notifications to be sent out.

To remove an acknowledgement for a host:

1. Pick up the host or service in the gui.
2. Click on **Remove Problem acknowledgement**

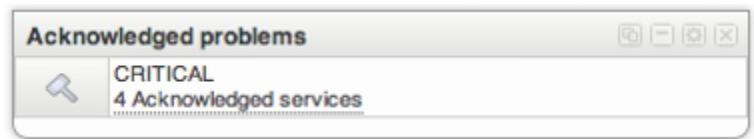


Now the notifications will continue as it is setup for the object.
The comment for the acknowledgement is not removed.

Removing multiple acknowledgements

To remove several acknowledgements:

1. Go to "tactical overview" and in the "acknowledge service problem" widget and click on "X Acknowledged services"



2. Click **Send Multi Action** below the search field



(It is located in the top right of the list.)

3. Choose **Acknowledge** in **Select Action** drop down list just below the list and click **Submit**.



Schedule downtime

Using scheduled downtime enables you to plan for system work ahead. When a host or service is scheduled for downtime op5 Monitor suppresses alarms for that host or service. Furthermore op5 Monitor informs you about when a host or service is scheduled for downtime through the web interface. Information about the scheduled downtime is also stored so that planned system work does not affect availability reports.

It is possible to schedule downtime for

- hosts
- services
- all members of a host group
- all members of a service group.

You can also configure triggered downtime for hosts located below a host currently in scheduled downtime. To do this you need to have your parenting configured correctly. Read more about [Par](#).

Viewing scheduled downtime

Basically the Scheduled Downtime view is a summary of all currently configured scheduled downtime for hosts and services.

Downtimes		Count: ! 3						
<input type="checkbox"/>	ID	Type	Host Name	Service	Entry Time	Author	Comment	Start Time
<input type="checkbox"/>	1	Host	✓ ap03-sth	<input type="checkbox"/>	2013-04-11 09:22:19	osandstrom	demo	2013-04-11 09:22:19
<input type="checkbox"/>	2	Host	✓ ap02-sth	<input type="checkbox"/>	2013-04-11 09:22:19	osandstrom	demo	2013-04-11 09:22:19
<input type="checkbox"/>	3	Host	✓ ap01-sth	<input type="checkbox"/>	2013-04-11 09:22:19	osandstrom	demo	2013-04-11 09:22:19

In this view you can also remove scheduled downtime

To view all scheduled downtime

1. Click **Scheduled downtime** in the main menu under the **Monitoring menu**.



Scheduling downtime

As you have seen we can schedule downtime for both hosts and services. Now we will take a look at how to schedule downtime for a host and a host group. The procedure is the same for services and service groups.
When the scheduled downtime starts a notification is sent saying that the scheduled downtime has started.
When adding a retroactively downtime, this will be noted in the log for the service or host.

To schedule downtime for a host

1. Find the host you like to schedule downtime for and pick up the host information page ([Error: Reference source not found](#)).
2. In the **Host commands** click **Schedule Downtime For This Host**.

Host **linux-server1**

Start Time **2012-11-13 14:37:01**

End Time **2012-11-13 16:37:01**

Fixed

Triggered By **N/A**

Duration **2.0**

Author **monitor**

Comment

Child Hosts **Schedule triggered downtime**

Submit **Reset**

- a. Enter start and end time.
- b. Choose between fixed or flexible. **Fixed** downtime starts and stops at the exact start and end times that you specify when you schedule it. **Flexible** is used when you know for how long a host or service will be down but do not know exactly when it will go down.
- c. Use **Triggered by** if you would like another schedule downtime to start the downtime. For instance, if you schedule flexible downtime for a particular host (because it's going down for maintenance), you might want to schedule triggered downtime for all of that host's "children". Note that this option is hidden if no other scheduled downtimes are available.
- d. If you chose flexible in b then type in how long the scheduled downtime is supposed to be active.
- e. Add a comment about this scheduled downtime.
- f. Choose what to do with the child host of this host (if there are any).

4. Click **Submit**.
5. Click **Done**.

To schedule downtime for a host group

1. Locate the host group you like to schedule downtime for by clicking on Hostgroup summary in the main menu under Monitoring.

Host Group	Host Status Summary	Service
Citrix Servers (Citrix_server)		

3. Click **Schedule downtime for all hosts in this Hostgroup** in the list of Hostgroup Commands.

Schedule downtime for all hosts in this hostgroup

4. Follow a-e in step **Fill in the form** in **To schedule downtime for a host**.
5. Click **Submit**.
6. Click **Done**.

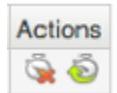
Remove a scheduled downtime

Sometimes it is necessary to remove a scheduled downtime. This can be done both before the scheduled downtime has started and during the downtime. If the scheduled downtime has been canceled before it has reached its end time a notification will be sent saying that the scheduled downtime has been canceled.

Removing a scheduled downtime

To remove a scheduled downtime

1. Open up the scheduled downtime view by follow the instructions in [To view all scheduled downtime](#).
2. Click the **delete** icon under Actions.



3. Click **Submit**.

A screenshot of a web-based configuration interface. At the top, there's a 'Triggered By' dropdown set to 'monitor'. Below it is an 'ID' field containing '15, Host 'monitor' starting @ 2012-11-14 08:06:02'. At the bottom are two buttons: 'Submit' and 'Reset'.

Now the scheduled downtime and the comment saved when you created the scheduled downtime is removed.

Schedule recurring downtime

As a good practice you shall put your hosts and services in scheduled downtime when you are planing to take them down. Many downtime events are recurring and it is pretty easy to forget to put your objects in scheduled downtime. This is when Recurring Downtime is a great help for you.

Scheduling a recurring downtime

Let us say that you are using Citrix and you need to reboot your citrix servers once per week. This is a perfect case of when you should use a recurring downtime schedule.

To add a recurring downtime

1. Click **Recurring downtime** in the Monitoring menu.



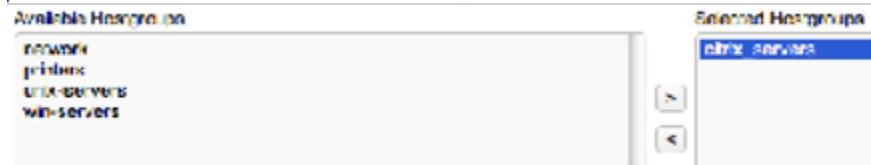
2. Select **New**, located to the left of the filter and multi select options



3. Choose the object type.



4. Choose objects to use, in this case the citrix host group.



5. Add a comment.
6. Set start and end time.

<input checked="" type="checkbox"/> Fixed	Time (hh:mm) *	Duration (hh:mm) *
	12:00	2:00

7. Choose day of week and months of the year this schedule shall be used.
8. Click **Add schedule**.

Viewing your recurring downtime schedules

Once you have created a recurring downtime schedule you may

- view it
- edit it
- delete it.

This is done from the Schedules tab.

The view looks like this

List view	Recurring_downtimes	Count: 24
Downtime type	Objects	Author
hosts	hyper-v	mpajor
hosts	cloud-poller	demo@op5.com
hostgroups	canton	

Editing a recurring downtime

To edit a recurring downtime

1. Click **Recurring downtime** and then **Schedules**.
2. Click **Edit**.



3. Edit the fields you like to change and click **Add schedule**.

Deleting a recurring downtime

To delete a recurring downtime

1. Click **Recurring downtime** and then **Schedules**.
2. Click **Delete**.



3. Click **Ok**.

Viewing Graphs

About

op5 Monitor includes support for graphing what's known as "performance data" returned by check plugins that support this feature. Performance data can be anything that gives a more detailed picture of a particular check's performance characteristics than the OK/WARNING/CRITICAL levels that Monitor reacts to.

For example, check_ping returns performance data for packet loss and round trip times. This data is stored by Monitor and used to create graphs for different time periods, such as the last 24 hours and past week. This feature can be very helpful in identifying trends or potential problems in a network.

Table of Content

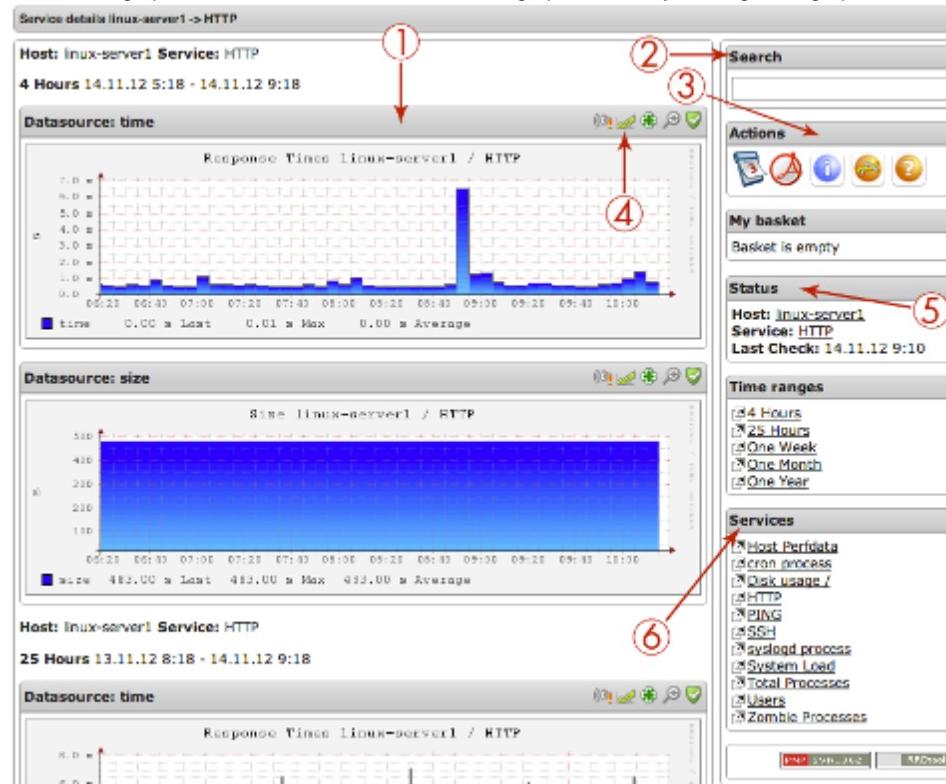
- About
- Viewing graphs
- Adding graphs for custom plugins
- Graph basket

Viewing graphs

From most of the views in op5 Monitor you can find the graph icon looking like this:



To view the graphs for a service or a host click on the graph icon and you will get the graph view.



The table below describes the parts of the service overview which is where all graphs are being displayed.

Nr	Description
1	The graphs. Except for the graphs in it self they shows information like <ul style="list-style-type: none"> host and service name warning and critical levels last, average and max values.
2	Here you can quickly get the graphs of an other host. Just type in the correct name of the host and press Enter .
3	Exports and calendar. Click the icons to <ul style="list-style-type: none"> export to PDF or XML open up the calendar to view old data.
4	Zooming and reports Click the icons to <ul style="list-style-type: none"> zoom in the graph show most resent alert for this time period for this host create an availability report for this time period for this host.
5	Host information Here you see a short information about the host. Click the host or service name to get extended details.
6	Other graphs on this host The list shows the rest of the graphs available for this host. Just click on one of them to view the graphs of an other service.

Adding graphs for custom plugins

Sometimes you find a plugin you like to use but there are no graphs made from the output of the plugin. Then you need to create your own template.

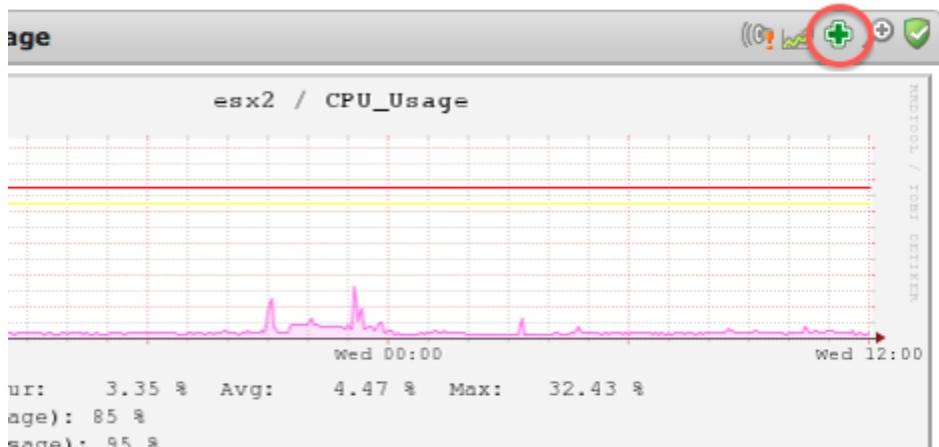
To create a template of your own follow the HOWTO that can be found in the documentation area of the support part at www.op5.com.

Graph basket

To view graphs from multiple sources it's possible to add graphs to the basket.

By adding a graph to the basket it will be possible to view the basket with the selected graphs below each other. This will give you an easy way to compare graphs from one or more hosts.

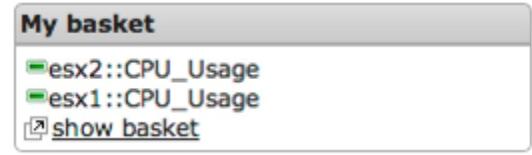
To add a graph to the basket select the graph that you would like to add then click on the + icon above the graph



After adding the desired graphs select **graphs** from the menu



then click on **show basket**



NagVis

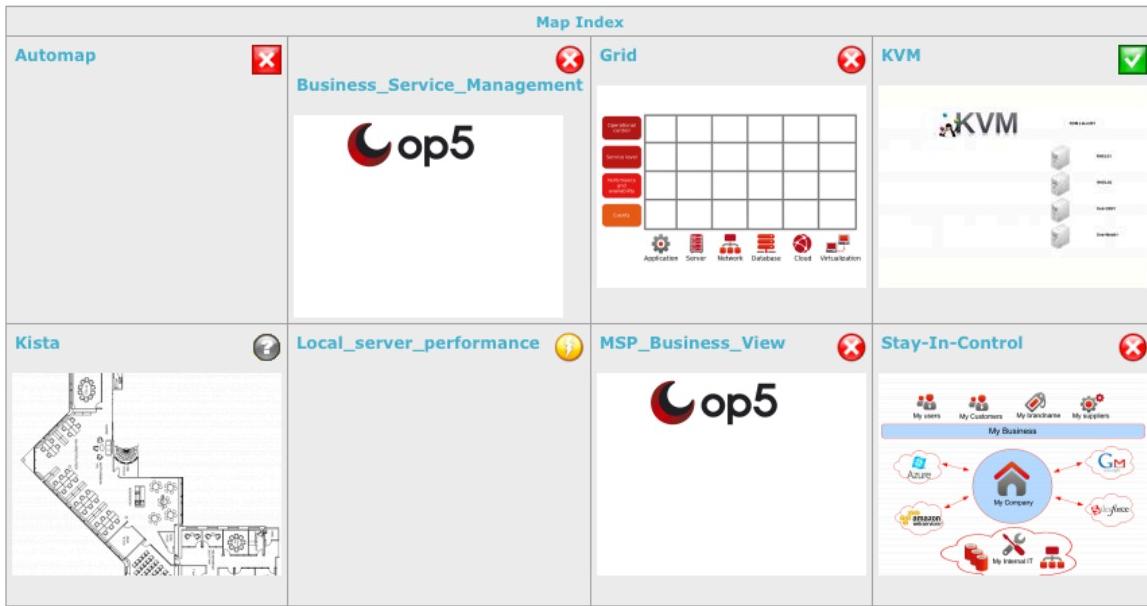
Introduction

NagVis is a visualization add-on for op5 Monitor and it is used to visualize op5 Monitor data, e.g. to display business processes like a mail system, network infrastructure or critical production processes.

In this chapter each type of map will be described. You will also learn how to complete the most common tasks like how to

- add, edit and delete maps
- add, edit and delete objects
- change global configuration

The first thing you will see when you open up NagVis in op5 Monitor is a few default demo maps, Automap and Geomap. The picture below shows an example of how the view may look like.



It is from this view you can display and manage your maps.

Automap

About

When you take a look at the Automap for the first time you will see the complete tree, including all your hosts. If you only like to see one part of the tree you have to change the following configuration setting:

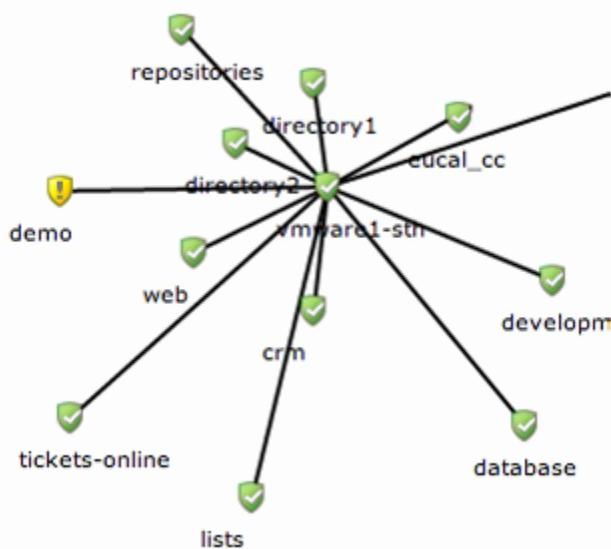
`defaultroot`

Defaultroot tells Nagvis what host to start your tree with.

Table of Content
<ul style="list-style-type: none"> • About • Example • Setting defaultroot <ul style="list-style-type: none"> • To set defaultroot.

Example

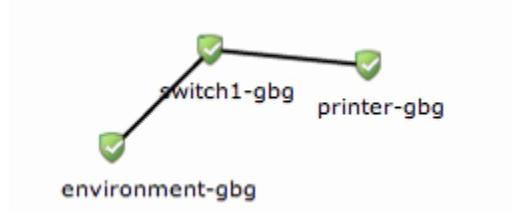
Example of how the defaultroot works in NagVis Automap
In this example we have the following tree in op5 Monitor.



Here the **demo** host is set to **defaultroot** and all of its children are displayed.

If you set the host **switch1-gbg** as **defaultroot** in Nagvis the automap only display **switch1-gbg** and its children (**environment-gbg** and **perimeter-gbg**).

rinter-gbg). The picture below shows how it would look like:

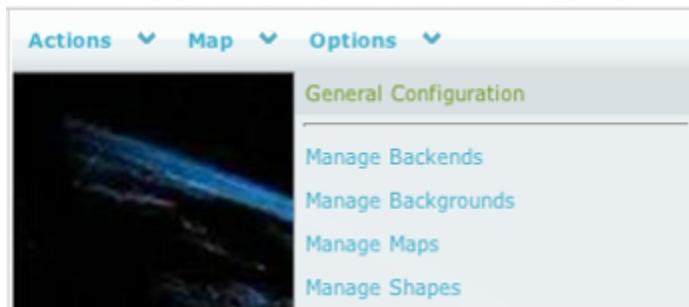


Setting defaultroot

This is done when you have one of the maps in Edit mode. There is no Edit mode on the automap so these steps have to be done on another map.

To set defaultroot.

1. Open Nagvis.
2. Go to the top menu and choose: **Option -> General Configuration**



3. In the **Automap** section and type in the complete host name in the "defaultroot" text box:

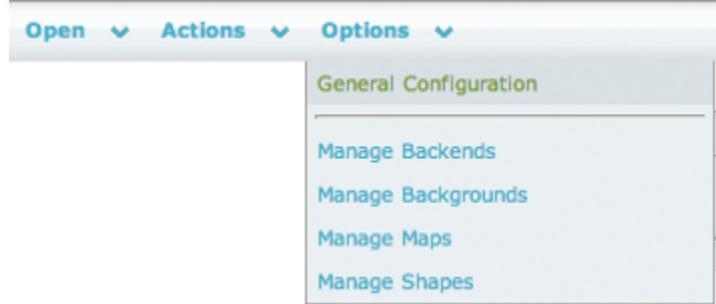


4. Click **Save** and the new setting has been saved.

Configure NagVis

About

All settings are administrated through the Configuration. The **Configuration** menu can be found under **Options** in the menu at the top of the default view



From this menu you can:

- Change the global configuration
- Add, edit and delete map and objects
- Add and delete background images
- Add, edit and delete shapes

- Configure the backend.

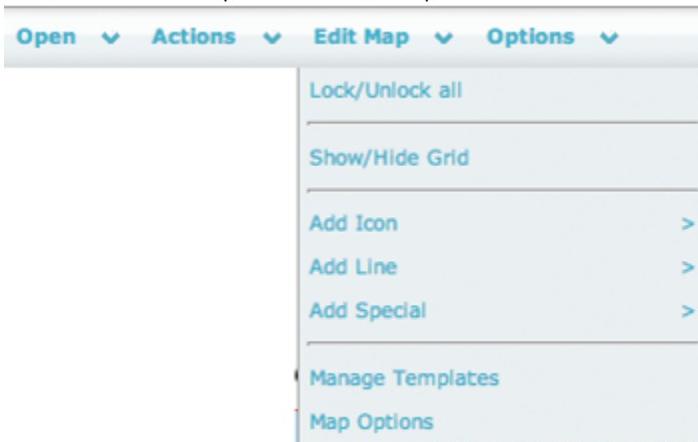
Table of Content

- About
- Edit plain maps
 - To edit a plain NagVis map

Edit plain maps

To edit a plain NagVis map

1. Click on NagVis in the monitoring menu of op5 Monitor.
2. Click on the NagVis map that you want to edit.
3. Use the menu on the top to access the edit options.



NagVis maps

About

As you have seen there are a couple of demo maps in the default configuration. They are included so you have something to start with when you are using NagVis for the first time.

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- Manage backgrounds
 - Add
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 - Adding a service icon
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 - Adding a line
- Graph objects
- Add a graph
 - Selecting graph source
 - Selecting graph length
 - Using multiple options
- Managing objects
 - Deleting objects
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Manage backgrounds

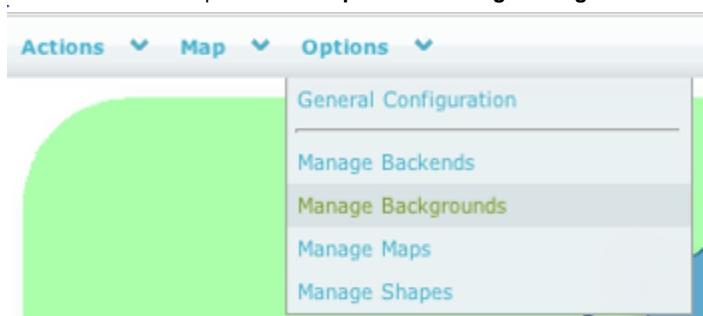
When you start to create your own maps you will need to have a background image. The background image can be what ever you want. The following image types are supported:

- jpeg (jpg)
- png
- gif

Add

To add a new background image

1. Go to nagvis in the monitoring menu.
2. Go to the menu on top and select **Options -> Manage Backgrounds**



3. Click on **Choose File** in the **Upload background image** and choose the image to upload.

Upload background image

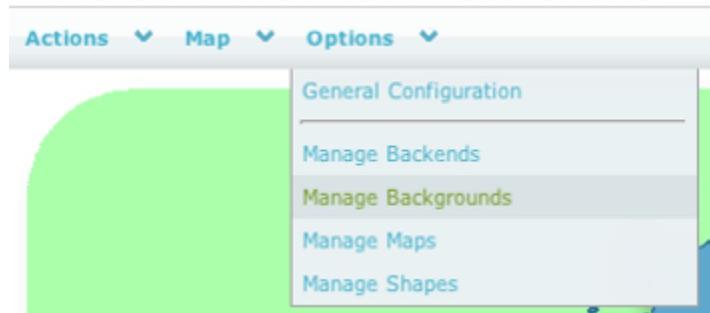
Choose an image No file chosen

4. Click **Upload**. Now your background image is ready to use.

Delete

To delete a background image

1. Go to nagvis in the monitoring menu.
2. Go to the menu on top and select **Options -> Manage Backgrounds**



3. Under **Delete background image** choose the background image you like to remove and click **Delete**.

Delete background image

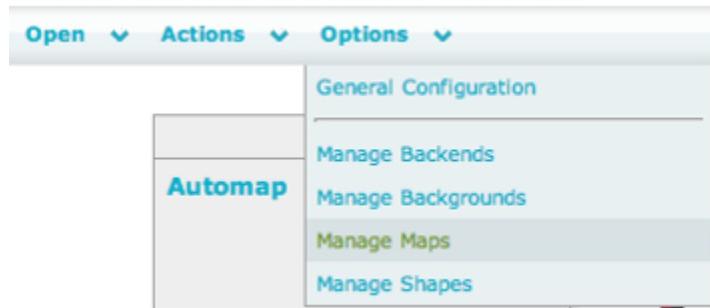
Choose an image

Manage maps

Add

To add a new map

1. Go to the menu on top and select **Options -> Manage Maps**



2. Now fill in the following fields:

Create map

Map name	Network-map
Map Iconset	std_medium
Background	nagvis-demo.png
Create	

Option	Description
Map name	The map name without space in the name.
Map Iconset	Choose what iconset you like to use.
Background	Choose what background image you like to use.

- Click on the **Create** button and your map is created and ready to be filled with objects.

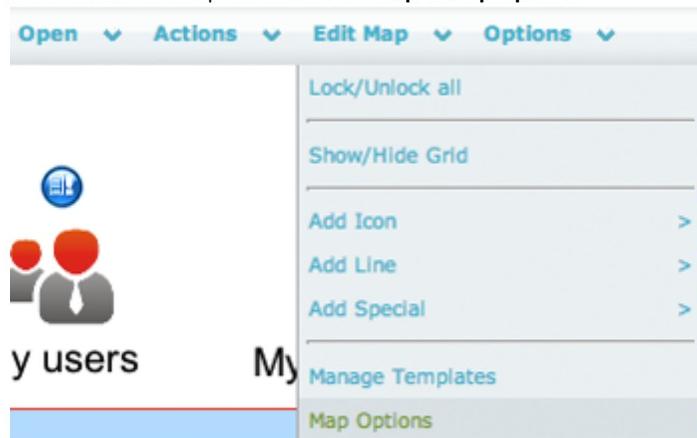
This will be the name of the map and used both in URLs and it will be the name of the configuration file in the file system

Change options

Since the **Add new map** window is pretty limited you probably want to change some of the options for your newly created map.

To find the Option window for your map.

- Go to the map that you would like to change.
- Go to the menu on top and select **Edit Map -> Map Options**

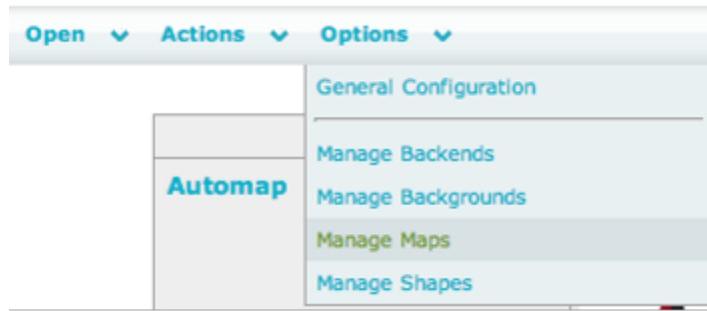


The number of options is large. For more information about the options please read more in the official NagVis Manual at:
<http://www.nagvis.org/documentation>

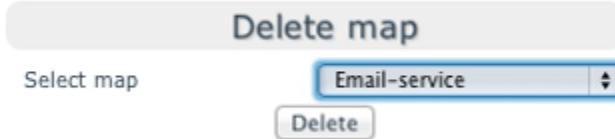
Deleting a map

To delete a map

- Select **Options -> Manage Maps** from the menu on top



2. Under **Delete map** choose the map you like to remove and click **Delete**.

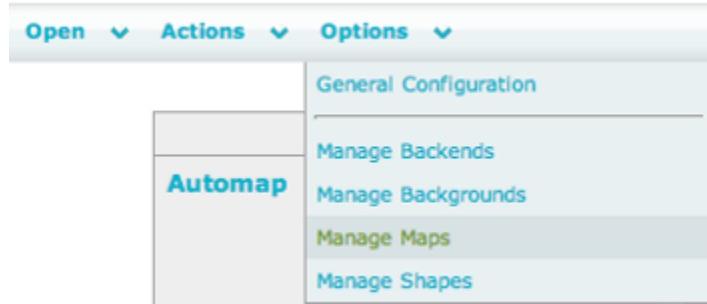


3. Click **Ok** in the pop-up question to deleted the map.

Renaming a map

To rename a map

1. Go to the top menu and choose **Options -> Manage Maps**



2. Select the map you like to rename.



3. Type the new name in the **New name** text field and click **Rename**.
4. Click **Ok** in the pop-up dialog that shows up and the map will be renamed.

Map object types

A map can have three types of objects. See the list of objects below:

- Icon
- Line
- Special

Each object type consist of a number of objects that may be used in a map. The table below briefly describes what objects each type includes:

Object Type	Objects
-------------	---------

Icon	<ul style="list-style-type: none"> • Host • Service • Hostgroup • Servicegroup • Map
Line	<ul style="list-style-type: none"> • Host • Service • Hostgroup • Servicegroup • Map
Special	<ul style="list-style-type: none"> • Textbox • Shape • Stateless Line • Container

If a host is in a problem state or a service on that host is in a problem state the host will be displayed in a non-green color (red, yellow or grey).

If you hover the mouse over an object you will get a summary of how the current object.

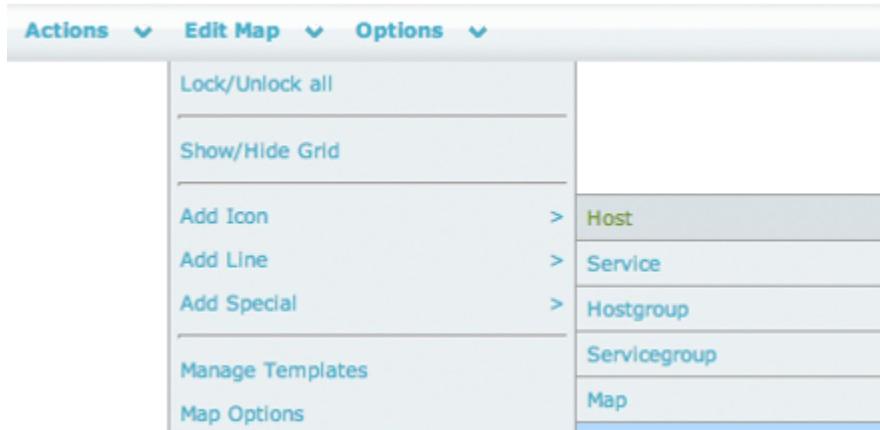
Icon objects

As you can see in the table in [Map object types](#) the type Icon consists of five different objects. All of them are icons that displays status of a certain object in op5 Monitor. They will change color depending of the status of the corresponding object in op5 Monitor.

Adding a host icon

To add a host icon

1. Go to the menu on top and select **Edit Map** -> **Add Icon** -> **Host**



2. You will now get a mouse pointer looking like a cross:



Click on the map where you like to add your host.

3. A box with the host options is now shown.

The screenshot shows the 'Create Object' dialog box. It has a title bar 'Create Object' and a close button 'X'. The form contains several input fields:

- 'host_name': A dropdown menu showing '94'.
- 'x': An input field containing '100'.
- 'y': An input field below 'x' containing '100'.
- 'z': A dropdown menu with '10' selected.
- 'url_target': A dropdown menu with '_top' selected.
- 'use': A checkbox that is unchecked.

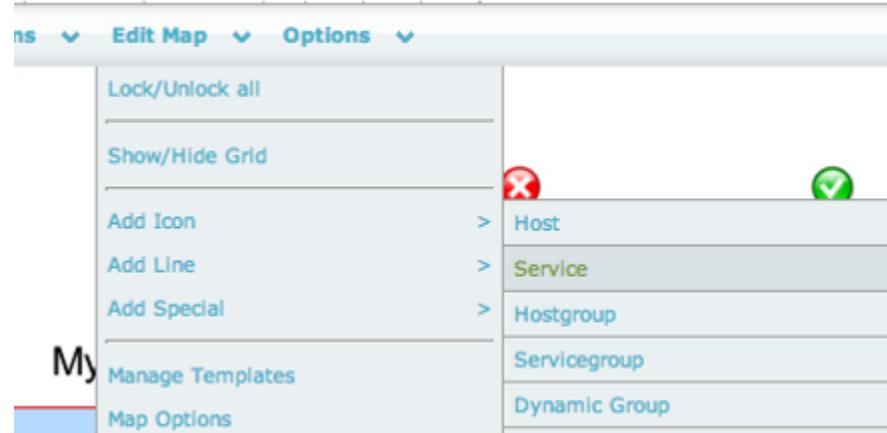
 At the bottom right of the dialog is a 'Save' button.

The options marked with bold text are mandatory. So the host name is the only one you have to change for now.

4. Click **Save** and your object is saved on the map.

Adding a service icon

1. Go the menu on top and select **Edit Map -> Add Icon -> Service**



2. You will now get a mouse pointer looking like a cross:



3. Click on the map where you like to add your service.

The 'Create Object' dialog box is shown. It has fields for 'host_name' (set to 'hyper-v'), 'service_description' (set to 'Backup job'), 'x' (set to '356'), 'y' (set to '37'), 'z' (checkbox checked, value '10'), 'backend_id' (checkbox checked, value 'live_1'), and 'view_type' (checkbox checked). There is also a large 'X' button in the top right corner.

First select the host of the service, then select the service.

4. Click **Save** and your object is saved on the map.

Line objects

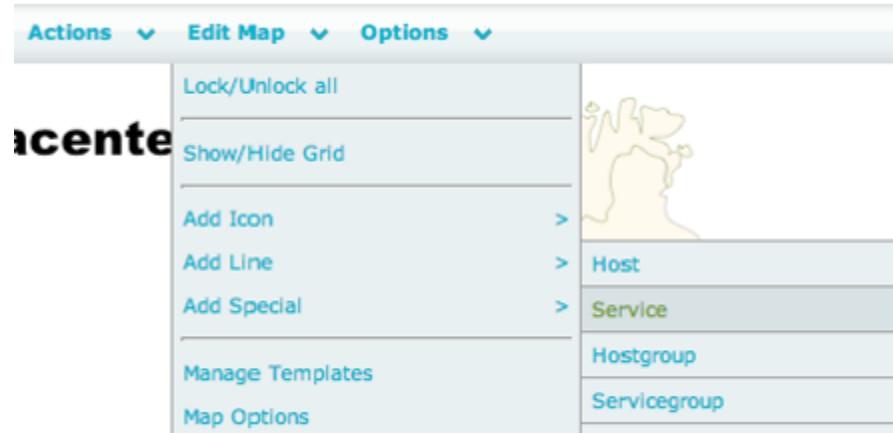
A line object is a printed line between two objects. It can symbolize a connection between two icon objects and be associated with a Nagios object.

Adding a line

Here we will add a line between two hosts and connect it to a switchport Bandwidth Usage check.

To add a line

1. Go to the menu on top and chose: **Edit Map -> Add Line -> Service**



2. Place the line between your objects like this.



- Click on the host icon you like to start your line from.
- Drag the mouse to the other host you like to connect the line to.
- Click where you like to end the line.

3. A box with the line options is now shown.

Create Object

host_name	switch1-gbg
service_description	IF 27: Trk1 Traffic
x	138,112
y	112,303
z	<input type="checkbox"/> 10
backend_id	<input type="checkbox"/> live_1
view_type	<input checked="" type="checkbox"/> line
line_type	<input checked="" type="checkbox"/> ---%---><---%---
line_arrow	<input type="checkbox"/> forward
line_cut	<input type="checkbox"/> 0.5

The options marked with bold text and **line type** are mandatory. So the host name, service descriptions and line type are the only ones you have to change for now.

4. Select line_type. The line type "%---><---%" is used for presenting the usage in percent.



The line type "%---><---%" is used for showing both percentage and BandWith. This line does not work with the standard traffic check.

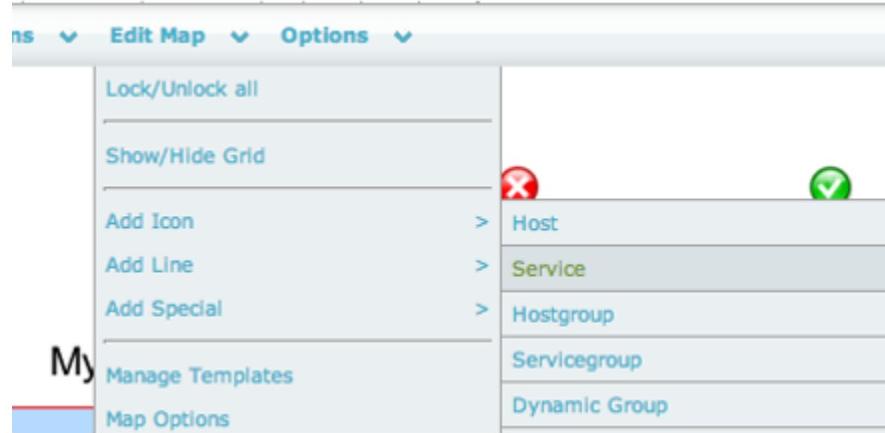
5. Click **Save** and your object is saved on the map. Note that the percentage is not viewable in configuration mode.

Graph objects

Add a graph

To add a graph to a nagvis map works in the same way as creating a service object.

1. Go the menu on top and select **Edit Map** -> **Add Icon** -> **Service**



2. You will now get a mouse pointer looking like a cross:



Click on the map where you like to add your service.

3. On the service dialog add the service as usage but change the following values:

Set **view_type** to **gadget**

Set **gadget_url** to **pnp_graph.php**

Set **gadget_typ** to **HTML Code**

Create Object	
host_name	switch1-gbg
service_description	Interface 20 - uplink Traffic
x	356
y	37
z	<input type="checkbox"/> 10
backend_id	<input type="checkbox"/> live_1
view_type	<input checked="" type="checkbox"/> gadget
gadget_url	<input checked="" type="checkbox"/> pnp_graph.php
gadget_type	<input checked="" type="checkbox"/> HTML Code
gadget_scale	<input type="checkbox"/> 100
gadget_opts	<input type="checkbox"/>
context_menu	<input type="checkbox"/> Yes

4. Click on **Save** to add the graph to the nagvis map.

Selecting graph source

A graph on a service can have multiple sources, for example the ping service has both Round Trip Times and Package loss where in this case RTT is source 0 and package loss is source 1.

To change the source for a graph in nagvis edit the graph object and add &source=x to **gadget_opts**

Modify Object

host_name	internet
service_description	PING
x	825
y	59
z	<input type="checkbox"/> 10
backend_id	<input type="checkbox"/> live_1
view_type	<input checked="" type="checkbox"/> gadget
gadget_url	<input checked="" type="checkbox"/> pnp_graph.php
gadget_type	<input checked="" type="checkbox"/> HTML Code
gadget_scale	<input type="checkbox"/> 100
gadget_opts	<input checked="" type="checkbox"/> &source=1
context_menu	<input type="checkbox"/> Yes
context_template	<input type="checkbox"/> default

Selecting graph length

To select another graph length use the **gadget_opts** option
&view=0 = 4 hours
&view=1 = 25 hours
&view=2 = one week
&view=3 = one month
&view=4 = one year

view_type	<input checked="" type="checkbox"/> gadget
gadget_url	<input checked="" type="checkbox"/> pnp_graph.php
gadget_type	<input checked="" type="checkbox"/> HTML Code
gadget_scale	<input type="checkbox"/> 100
gadget_opts	<input checked="" type="checkbox"/> &view=3
context_menu	<input type="checkbox"/> Yes
context_template	<input type="checkbox"/> default

Using multiple options

To combine multiple options for a graph enter the options directly after each other.
For example if you would like to view a package loss graph for the last year use the **gadget_opts &source=1&view=4**.

Managing objects

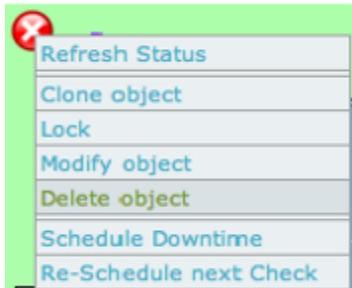
Deleting objects

To delete an object

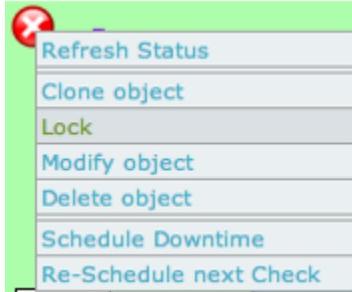
1. Open the map in which the object is located.
2. Right click on the object icon and the following dialog is shown



3. Click **Unlock** to enter edit mode for that object
4. Right click on the object again and select **Delete**.



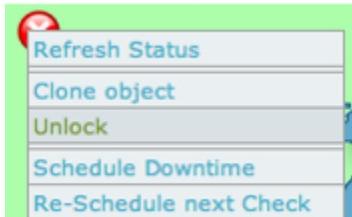
5. Lock the object again to exit edit mode. Right click on the object and select **Lock**



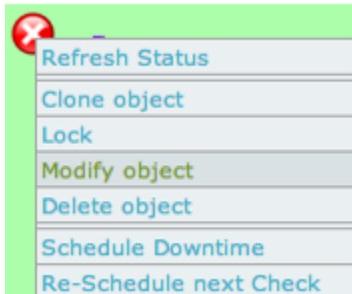
Modifying objects

To modify an object

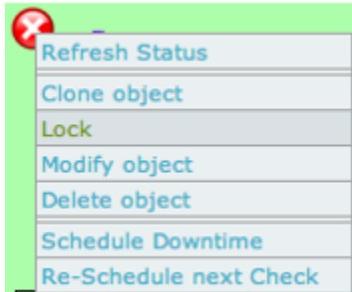
1. Open the map in which the object is located.
2. Right click on the object icon and the following dialog is shown



3. Click **Unlock** to enter edit mode for that object
4. Right click on the object again and select **Modify object**.



5. Lock the object again to exit edit mode. Right click on the object and select **Lock**



Rotation pools

About

The Rotation pools are just sets of NagVis maps that are used to rotate between. So you can open up a rotate pool to have your maps shown for a certain time and then the rotate function will switch to the next map in the pool.

Neither automap nor Geomap can be used in a rotation pool.

There is no GUI to use for administration of the rotate pools. You have to edit the nagvis.ini.php file that is located here:

`/opt/monitor/op5/nagvis_ls/etc/nagvis.ini.php`

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- [About](#)
- [Adding a rotation pool](#)
 - [To add a rotation pool](#)

Adding a rotation pool

To add a new rotation pool you have to edit nagvis.ini.php. Look in the file for the following section:

```
; -----
; Rotation pool definitions
; -----
```

To add a rotation pool

1. Logon to your op5 Monitor server, as root, via ssh or directly at the console.
2. Open up nagvis.ini.php in your favorite editor.
3. Go down to the "**Rotation pool definitions**" and add the following lines: [rotation_demo] rotationid="demo" maps="demo,Demo2:demo2" interval=15 The table below describes the options shown above:

Option	Description
[rotation NAME]	NAME is the displayed name of this rotation pool on NagVis default page.
rotationid="NAME"	NAME is the ID of this rotation pool, need to be the same as NAME in [rotation_NAME].
maps="Map1:map1,Map2:map2"	Map1 & Map2 is labels which is being displayed in the index pages rotation list.
interval=15	15 is the rotation time in seconds between the maps.



Maps must be named exactly the same as the corresponding cfg file.

Save and quit your editor.

Go back to your browser and reload the NagVis default page

Reporting

Reporting

Events and logs

About

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- About
- Alert summary - Top alert producers
 - Creating a Top alert producers report
 - Top alert producers result
 - Saving an Alert summary report
 - Scheduling an Alert summary report
- Trends
 - Creating a trend report
- Event log
 - Viewing and filtering logs
- Alert History
 - Viewing and filtering logs

Alert summary - Top alert producers

One useful report in op5 Monitor is the Top alert producers report. This report is created from the Alert summary. The Top alert producers report makes it easy to identify the biggest problem producers in your environment monitored by op5 Monitor.

Creating a Top alert producers report

Create a Top alert producers report

1. Click Alert summary in the main menu.



2. Select custom report mode.



3. Select all hostgroups.



4. Select Report period Since this is the first time we generate this report we use the last 31 days. When you use this on, for example, weekly basis you could use the last 7 days.



5. Select Summary type and set it to Top alert producers.

6. Leave the Alert Types with the default value.
7. Choose Hard states for State Types, we are only interested in the real problems.
8. Choose only problems state for both hosts and services.
9. Set the number of items to show in the resulting report. If you have a large environment with a lots of host you might want to increase the number of shown items.
10. Click on **Show Report**.

Top alert producers result

Now we have a report ready to be examined.

Top hard alert producers

2010-03-08 12:13:54 to 2010-04-08 12:13:54
Duration: 30d 23h 0m 0s

RANK	PRODUCER TYPE	HOST	SERVICE	TOTAL ALERTS
1	Service	Porta_SIP	PING	148
2	Service	router1	IF 10: ipsec0 Traffic	103
3	Service	router1	Monitor CPU	61
4	Service	router1	PING	10

This report can be used as a guide to help you to minimize the number of false alerts and notifications. Significant amounts of false alerts can lead to the users loosing faith in the monitoring system.

Saving an Alert summary report

Alert summary reports are useful from time to time. So when you have created a new one you will probably like to use that one another time. Then it is a good idea to save it.

To save an Alert summary report.

1. Create an Alert summary report like you did in [Creating a Top alert producers report](#), show the report then:
2. Click **Save report**.



3. Enter a name for the report and click **Create Summary Report**.

Scheduling an Alert summary report

For the exact same reason as it is to schedule an availability report or a SLA report you might want to schedule an alert summary report.

To schedule an alert summary report

1. Create an Alert summary report like you did in [Creating top alert producers report](#) and save the report.
2. Click the plus icon at the right top of the page



3. Follow the instructions in Schedule reports, just select "Alert summary report" as report type.

New Schedule

Select report type
Alert Summary Report

Report Interval
Weekly

Select report
Top Hard Service Alert Producers - test

4. Click **Save**.

Trends

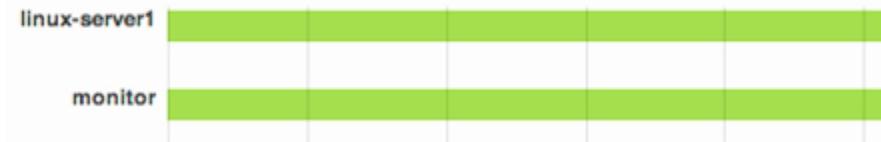
Trends display a graphic view of status on a host or a service during a selected time period. This graphical view is reached from Availability reports.

Creating a trend report

1. Click **Include trends graph**.

Include trends graph
 Show trends re-scaling

2. The trends will be shown in the report.



Event log

An event log displays a list of all events that has occurred in op5 Monitor. It shows you everything from alerts and notifications to op5 Monitor service restarting. In other words this is a log viewer for the main op5 Monitor log.

Viewing and filtering logs

In the op5 Monitor event log you can
view every event that took place in op5 Monitor
filter out any kind of events you do not want to see
set the start and end time of the logs you like to view.

To view the event log

Click the Event log icon in the main menu and there you go.



As you can see in the picture below everything except for **Initial and logrotation states** are shown by default.

State type options

- Soft states
- Hard states

Host state options

- Host down
- Host unreachable
- Host recovery

Service state options

- Service warning
- Service unknown
- Service critical
- Service recovery

General options

- Hide flapping alerts
- Hide downtime alerts
- Hide process messages
- Hide initial and current states
- Hide logrotation messages
- Hide external commands
- Older entries first

First time
(Click calendar to select date)

Last time
(Click calendar to select date)

Update

2011-10-31 16:00

[2011-10-31 15:01:15] Warning: Return code of 127 for check of service "test multiline" on host "dev-mon.int.op5.se" was out of bounds. Make sure the plugin you're trying to run actually exists.

2011-10-31 15:00

[2011-10-31 14:59:05] SERVICE ALERT: win2008-i386;PING;OK;SOFT;2;OK - 192.168.1.195: rta 13.350ms, lost 0%
 [2011-10-31 14:58:05] SERVICE ALERT: win2008-i386;PING;WARNING;SOFT;1;WARNING - 192.168.1.195: rta 203.001ms, lost 0%
 [2011-10-31 14:56:15] Warning: Return code of 127 for check of service "test multiline" on host "dev-mon.int.op5.se" was out of bounds. Make sure the plugin you're trying to run actually exists.
 [2011-10-31 14:55:55] SERVICE ALERT: logserver;authentication failure;OK;HARD;3;OK - 5 matches for general filter "authentication failure": Host: beta; fatal: Read from socket failed: Connection reset by peer

The event log view is divided into two parts

- filtering
- logs

In the filtering you can change what type of events you like to show and also between what dates you would like to view logs for.

The logs are grouped by hours to make it a bit easier to find what you are looking for.

Alert History

The alert history view is a view for all alerts that has been detected by the system.

Viewing and filtering logs

In the op5 Monitor alert history you can

- view every alert that took place in op5 Monitor
- filter out any kind of alerts you do not want to see
- set the start and end time of the alerts you like to view.

To view the alert history

Click Alert history icon in the main menu, and you see an unfiltered list of alerts.



Filter alert history

The list can be long. Try applying a filter to it by using the filter options. You can access them through the **Edit settings** icon.



In the appearing dialog you can filter your alert history view.

The screenshot shows the configuration interface for alert history. It includes sections for 'Alert Types' (with 'Host and service alerts' selected), 'State Types' (with 'Hard and soft states' selected), 'Report Period' (set to 'Last 24 hours'), and 'Items to show' (set to 100). There are also checkboxes for 'Show all', 'Include full output', 'Show process messages', and 'Older entries first'. An 'Update' button is at the bottom.

By checking the check box **Show all** it is possible to filter the view on hostgroups, hosts, services and servicegroups as well. Select the checkbox **Include full output** to get the status information from the check in the alert history as well.

Reports

About

It shows you the status on your hosts and services right now. The Reporting headline is about letting the user create historical reports from the information that op5 Monitor has collected.

A monitoring system receives a huge amount of data from your IT environment. op5 Monitor has a powerful, yet easy-to-use, built-in report generator.

The reports are generated from the history-logs from all the elements included in the report.

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• Save reports	
• Saving a report	
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• Schedule a report from the report menu	
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• To modify a scheduled report	
• Deleting scheduled reports	

SLA

The reports in op5 Monitor can be mapped against unique Service Level Agreements. This means that you can directly see and follow-up on both your internal and external SLAs.

Creating an SLA report

The fast and easy way to create an SLA report is to only follow steps 1-3 and then skip to the end of the guide, which will cause default values to be used for almost all settings.

The complete instruction describes all settings.

To create a SLA report:

1. In the reporting menu click on **SLA Reporting**

The report setup page is displayed

SLA report

Switch to Availability report

Report type
Hostgroups Select

Filter Clear

Available Hostgroups
Citrix_server
network
printers
unix-servers
win-servers

Selected Hostgroups

Report Settings

Enter the settings for your report

Reporting period
This Year Select

Report time period
24x7

SLA calculation method
Group availability (SLA)

Count scheduled downtime as
Actual state

Assume states during program downtime
Include alerts log
Skin

States to hide
Up Down Unreachable

Use alias
Use cluster mode
Include soft states

Description

2. Choose **Report type** (what type of objects to base your reports on). We will use **hostgroups** in this guide.
-

3. Select the objects you like to base the report on and move them from **Available hostgroups** to **Selected hostgroups**.

Available Hostgroups
Webservers
network
printers
unix-servers
win-servers

Selected Hostgroups
Environment

4. Select Reporting period and Report timeperiod. Reporting period controls the length of the report. Report time period can be used

to include or exclude times and dates from the report. This is based on the time periods set in the configuration.

Reporting period <input checked="" type="checkbox"/> This Year	Report time period
--	---------------------------

5. Choose which SLA calculation method to use.

SLA calculation method <input checked="" type="checkbox"/> Group availability (worst state)

You may choose between Traditional Availability reports are based on group availability (worst case). An alternative way is to use average values for the group or object in question. Note that using average values is sometimes considered not to be an proper form of SLA.

- Group availability (worst state)
- Average
- Cluster mode (best state)

6. Set the desired values in the following options or go directly to step 7 and leave the settings with their default value.

a. Choose if you like to count scheduled downtime as uptime, actual state or uptime with difference.

Count scheduled downtime as <input checked="" type="checkbox"/> Actual state
--

"Uptime, with difference" will count downtime as uptime, but will also print the difference from counting downtime as the actual state.

b. Choose whether you would like to see the alias instead of the host name in the generated report.

Use alias

- c. Choose whether to assume the previous state still applies when op5 Monitor isn't running.

Count program downtime as <input checked="" type="checkbox"/> Assume previous state

- d. Choose whether you would like to hide specific states for the hosts or services in the report. Note that this option just hides the column and does not recalculate the percentage show in the graph.

States to hide <input type="checkbox"/> Up <input type="checkbox"/> Down <input type="checkbox"/> Unreachable <input type="checkbox"/> Pending
--

- e. If this report is based on a Business Service whose top level element has been published as a service, it is possible to include the events from the BSM. It will show the underlying checks that triggered alerts in the BSM. If the selected BSM service is not a top level element, no BSM events will be displayed.

Include BSM events

- f. Enter a description for the report. This will be included in the header of the report.

Description <input type="text"/>
--

- g. Choose whether to include soft states or only use hard states in the report.

Include soft states

- h. It is possible to include a Summary Report with the SLA report. For more information about summary reports, see Alert summary - Top alert producers

Include Summary Report

- i. Include performance graphs if you would like to include all the graphs for the hosts and services included in the SLA report.

Include performance graphs

- j. Select skin. Skins modify the visual appearance of the report.

?

Skin

default

- k. This skin will be used in both HTML and PDF reports.
7. Enter SLA values as percentages between 0 and 100.

Enter SLA

Jan	Feb	Mar	Apr
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
%	%	%	%

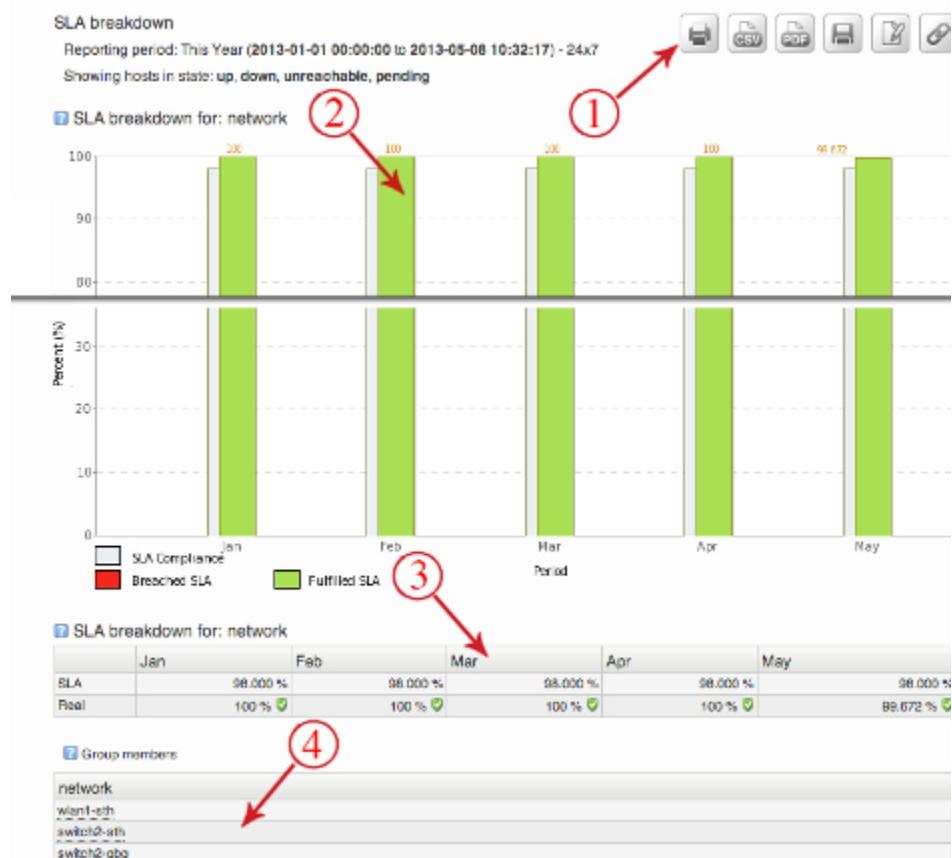
Click on the icon in front of the name of the months to copy the value to the other months that are available Only the months that are included in the report will be available.



8. Click **Show report**.

The SLA report

When you have created your report you will get a result page looking like this.



The table below describes the parts of the result page

Nr	Description
1	<p>The action icons allow you to</p> <ul style="list-style-type: none">• save the report• direct link to report• edit settings• save the report as a pdf or csv• print the report.
2	<p>The report graphs.</p> <p>Click on the graph to get an availability report for the duration of the SLA report.</p>

3	The result, same result as above, shown in a table.
4	A list of every object included in the report. Click on the object name to get an SLA report for each and every object.

Editing the SLA report settings

You do not have to create a completely new report if you only want to change a minor setting in the one you just created.

To edit the settings

1. Click edit settings.



2. Edit the settings you would like to change in the dialog shown below. All options are described in Creating SLA report.

The screenshot shows a configuration dialog for an SLA report. At the top, there's a dropdown menu for 'Report type' with 'Hostgroups' selected. Below it is a 'Selected hostgroups' list containing 'unix-servers'. On the left, there's a 'Available hostgroups' list with items like 'DNS servers', 'Generic hosts', etc. In the center, under 'Report Settings', there are several sections: 'Enter the settings for your report', 'Reporting period' (set to 'Last 12 months'), 'SLA calculation method' (set to 'Group availability (worst state)'), 'States to hide' (checkboxes for 'Up', 'Down', 'Unreachable'), and 'Count program downtime as'.

3. Click **Show report** to save the new values.

Availability

An availability report shows availability for host groups, service groups, hosts or services, during a specified period of time.

Creating an availability report

The fast and easy way to create an availability report is to only follow steps 1-3 and then skip to the end of the following guide, which will use default values for almost all settings.
The complete instruction describes all settings.

To create an availability report

1. In the main menu to the left click **Availability**



The report setup page is displayed

Availability report

Switch to SLA report

<input type="checkbox"/> Saved reports	- Select saved report -	<input type="button" value="Select"/>	<input type="button" value="New"/>	<input type="button" value="Delete"/>
<input type="checkbox"/> Report type	Hostgroups	<input type="button" value="Select"/>		
<input type="checkbox"/> Filter	<input type="text"/> <input type="button" value="Clear"/>			

Available hostgroups

- DNS servers
- Generic hosts
- HP Servers
- VMware Host
- VMware hosts
- Web servers
- Web servers https
- Windows servers

Selected hostgroups



Report Settings

Enter the settings for your report

<input type="checkbox"/> Reporting period	<input type="checkbox"/> Report time period
Last 7 days	24x7
<input type="checkbox"/> SLA calculation method	<input type="checkbox"/> States to hide
Group availability (worst state)	<input type="checkbox"/> Up <input type="checkbox"/> Down <input type="checkbox"/> Unreachable <input type="checkbox"/> F
<input type="checkbox"/> Count scheduled downtime as	<input type="checkbox"/> Count program downtime as
Actual state	Assume previous state
<input type="checkbox"/> Include soft states	<input type="checkbox"/> Use alias
<input type="checkbox"/> Include alerts log	<input type="checkbox"/> Include pie charts
<input type="checkbox"/> Include trends graph	<input type="checkbox"/> Include performance graphs
<input type="checkbox"/> Include BSM events	<input type="checkbox"/> Description
<input type="checkbox"/> Include summary report	
<input type="checkbox"/> Skin	
default	

- Choose **Report type** (what type of objects to base your reports on).

<input type="checkbox"/> Report type	<input type="checkbox"/> Selected
Hostgroups	<input type="button" value="Select"/>

We use hostgroups in this guide.

- Select the objects you would like to base the report on and move them from **Available hostgroups** to **Selected hostgroups**

Available Hostgroups

- Webservers
- network
- printers
- unix-servers
- win-servers

Selected Hostgroups

- Environment



- Select Reporting period and Report timeperiod. If you leave Report timeperiod empty it will be the same as 24/7.

Reporting period controls the length of the report. Report time period can be used to include or exclude times and dates from the report. This is based on the time periods set in the configuration.

<input type="checkbox"/> Reporting period	<input type="checkbox"/> Report time period
This Year	

5. Choose which SLA calculation method to use.

SLA calculation method
 Group availability (worst state)

You may choose between Traditional Availability reports are based on group availability (worst case). An alternative way is to use average values for the group or object in question. Note that using average values is sometimes considered not to be a proper form of SLA.

- Group availability (worst state)
- Average
- Cluster mode (best state)

6. Set the desired values in the following options or go directly to step 7 and leave the settings with their default value.

- a. Choose if you like to count scheduled downtime as uptime.

Count scheduled downtime as
 Actual state

- b. Choose whether you would like to include a complete log for the included objects in the report

Include alerts log

- c. Choose whether you would like to include trend graphs. It is also possible to rescale the part of the graphs where there are state changes to make them more visible.

Include trends graph
 Show trends re-scaling

- d. Choose whether you would like to see the alias instead of the host name in the generated report.

Use alias

- e. Choose whether to assume the previous state still applies when op5 Monitor isn't running.

Count program downtime as

Assume previous state

- f. Choose whether you would like to hide specific states for the hosts or services in the report.

States to hide
 Up Down Unreachable Pending

- g. Enter a description for the report. This will be included in the header of the report.

Description

- h. Choose whether to include soft states or only use hard states in the report.

Include soft states

- i. It is possible to include a Summary Report with the SLA report. For more information about summary reports, see Alert summary - Top alert producers

Include Summary Report

- j. Include a summary pie chart to the report.

Include Pie Charts

- k. Include performance graphs if you would like to include all the graphs for the hosts and services included in the SLA report.

Include performance graphs

- l. Select skin.

Skin

default

This skin will be used in both HTML and PDF reports.

- m. If this report is based on a Business Service whose top level element has been published as a service, it is possible to include the events from the BSM. It will show the underlying checks that triggered alerts in the BSM. If the selected BSM service is not a top level element, no BSM events will be displayed.

Include BSM events

7. Click **Show report**.

The Availability report

When you have created your report you will get a result page looking like this.

Hostgroup breakdown

Reporting period: Last 7 days (2014-03-11 11:28:57 to 2014-03-18 11:28:57) - 24x7

Showing hosts in state: up, down, unreachable, pending

Counting scheduled downtime as Actual state

Assuming previous state during program downtime

vhosts

	Up	Down	Unreachable	Undetermined
kvm-devel	100 %	0 %	0 %	0 %

Summary of vhosts

	Up	Down	Unreachable	Undetermined
Group availability (Worst state)	100 %	0 %	0 %	0 %

vmachines

	Up	Down	Unreachable	Undetermined
windows-szh	99.971 %	0.029 %	0 %	0 %
windows-gbg	100 %	0 %	0 %	0 %
directory2	100 %	0 %	0 %	0 %
directory1	100 %	0 %	0 %	0 %
demo	100 %	0 %	0 %	0 %
database	100 %	0 %	0 %	0 %
crm	100 %	0 %	0 %	0 %

Summary of vmachines

	Up	Down	Unreachable	Undetermined
Group availability (Worst state)	99.971 %	0.029 %	0 %	0 %

Total summary for all hosts

	Up	Down	Unreachable	Undetermined
Group availability (Worst state)	99.971 %	0.029 %	0 %	0 %

Status overview : vhosts

Status overview : vmachines

The table below describes the different parts of the result page.

Nr	Description
1	<p>The action icons allow you to change and save the report:</p> <ul style="list-style-type: none">• Save it to be able to create a scheduled report• Edit some report settings in a popup frame• Direct link to report• Download the report as a CSV file.• Show the report as an PDF.• Print the report.

2	<p>This is the actual result. You can here see how much time each object has been in the different states. Click on the object names in the list to get a more detailed report for them.</p> <p>There are two summary rows in the bottom of the table:</p> <ul style="list-style-type: none"> • Average This is the average value for a group of hosts/services. It is calculated by adding the % Time for each host/service and then divide the total value with the amount of hosts/services in the group. • Group Availability (SLA) The SLA value for a given time is the worst, "most broken" state of any of the objects in the report. It displays the amount of time where all hosts/services in the group has been UP/OK or in a PROBLEM state at the same time.
3	A pie chart displaying the result in a graphical way.

Editing the availability report settings

You do not have to create a totally new report if you only like to change a minor settings of the one you just created.

To edit the settings

Click edit settings.



Edit the settings you like to change in the dialog shown below. All options are described in [Creating an availability report](#).

Report Settings

Enter the settings for your report	
<input checked="" type="checkbox"/> Reporting period	<input checked="" type="checkbox"/> Report time period
<input type="button" value="This Week"/>	<input type="button" value="24x7"/>
<input checked="" type="checkbox"/> SLA calculation method	<input checked="" type="checkbox"/> States to hide
<input type="button" value="Group availability (SLA)"/>	<input type="checkbox"/> Up <input type="checkbox"/> Down <input type="checkbox"/> Unreachable
<input checked="" type="checkbox"/> Count scheduled downtime as	<input checked="" type="checkbox"/> Use alias
<input type="button" value="Actual state"/>	<input checked="" type="checkbox"/> Use cluster mode
<input checked="" type="checkbox"/> Assume states during program downtime	<input checked="" type="checkbox"/> Include soft states
<input checked="" type="checkbox"/> Include alerts log	<input checked="" type="checkbox"/> Include trends graph
<input checked="" type="checkbox"/> Skin	<input checked="" type="checkbox"/> Show trends re-scaling
<input type="button" value="default"/>	<input checked="" type="checkbox"/> Description

Click **Show report** to save the new values.

Save reports

There are two reasons for saving a report:

It is easy to reach the same report the next time you would like to see it.

You can set up a schedule for it to be regularly regenerated with current data and sent to you or anybody else in an email, or saved as file.

To save a report you need first to create the report. When viewing the report the save option will be available.

The procedure is the same for both SLA reports and Availability reports. In the guide below we will use a SLA report.

Saving a report

To save a report

Create a new report.
In the result page click **Save report**.



Give the report a name.

Click **Save report**.

Schedule reports

If you want a report to be regularly regenerated, you should schedule the report to do this automatically.
Before you schedule a report you need to create it (Creating SLA report or availability report) and then save it (Save reports).
Scheduling reports can be done by clicking Schedule in the reporting menu.



Note that the report first must be saved before a scheduled report can be created.

Schedule a report from the result page

In the guides below we will schedule a SLA report but it is done exactly the same way for the availability reports.

1. Create the report as shown in Creating SLA report.
2. Save the report as shown in Save reports.
3. Click create schedule icon.



4. Fill in the options in the new window.

5. Select report type, choose the same type of report that you saved before.
6. Choose Report Interval. This will be how often the report is supposed to be sent.
7. Select the saved report.
8. Add Recipients email addresses, separated by a comma.
9. Give the report a file name. This is the name that the pdf file will have when it arrives in your mailbox.
10. Add a description for the scheduled report.
11. Add a path where to save the report. The path must be absolute and include the filename, with either .pdf or .csv prefix depending in what format you want the file. This is optional.
12. Click **Save**.

Schedule a report from the report menu

Before a report can be scheduled through the menu a report must first be saved.

1. Create the report as shown in Creating SLA report.
2. Save the report as shown in Save reports.
3. Go to the report menu and select **Schedule Reports**



Schedule Reports

4. Select the report type, the saved report and report interval.

Select report type
Availability Report

Report Interval
Weekly

Select report
demo

5. Enter the email addresses of the recipients of the report. To enter multiple addresses, separate them by commas
Recipients
demo@company.com, user@company.com

6. If you would like to save the report as a file, enter a local path of the op5 server. This could be saved to a mounted share on the op5 server.
Save report in this local folder
/mnt/reports

7. Click on **Save**.



Weekly reports are sent out on Mondays and monthly reports are sent out on the 1:st every month.

Modifying scheduled reports

To modify a scheduled report

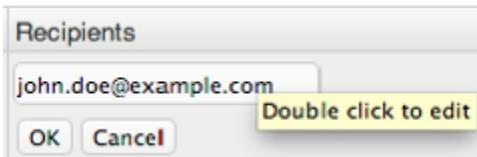
1. Click Schedule reports in the main menu.



2. Double click on any field you like to modify.

SLA Reports						
INTERVAL	REPORT	RECIPIENTS	FILENAME	DESCRIPTION	LOCAL PERSISTENT FILEPATH	ACTION
Monthly	test	user@example.com	rreport.csv	Double click to edit	tmp	
Monthly	test	user@example.com	rreport.pdf	Double click to edit	Double click to edit	

3. Click **OK** to save.



If you want to save the report as file, enter a absolute path including the filename and prefix (.pdf or .csv) in local persistent filepath.

Deleting scheduled reports

To delete a scheduled report

1. Click Schedule reports in the main menu.



2. Click delete icon on the schedule you like to delete.



3. Click **OK**.

The GUI

This chapter will describe the graphical interface of op5 Monitor

Filters

About

Filters can be used to filter out content in op5 Monitor. They can be based on names, states, comments or other information. Filters can be applied on listviews. All listview content is based on filters, so for example when viewing a host and its services the view is based on a filter that can be manipulated.

Edit filter

To edit a filter, click on the filter icon in the listview



You can either edit the filter manually or graphically. When editing a filter graphically the manual string is automatically shown. We will focus on the graphical design of filters.

Categories

There are nine categories to choose from that will affect the layout of the listview.

- Host
- Service
- Host Group
- Service Group
- Comments
- Downtimes
- Contacts
- Notifications
- Saved Filters

A screenshot of the graphical filter editor. At the top, it says "Manual input" with a text field containing "[services] all". Below this is a dropdown menu titled "hosts" with a list of categories. The "services" option is selected and highlighted with a blue background. Other options in the list include "hostgroups", "servicegroups", "comments", "downtimes", "contacts", "notifications", and "saved_filters". There are also some numbers on the right side of the dropdown menu.

Filter Groups

A filter group is a logical "AND" or "OR" operator. There is also a negate group.

In each filter group there can be several rules and sub-groups.

Rule

A rule contains an actual search field. Different types of categories have different types of rules. A rule can, for example, be host.name or service.group.

Examples

Example 1

Here we will list all services that are notifying to contact-group "support-group" and is a member of the hostgroup "network".
Manual Input: [services] contact_groups >= "support-group" and groups >= "network"

Graphical input

services

and filter group

contact_groups	contains	support-group
----------------	----------	---------------

AND

groups	contains	network
--------	----------	---------

Add rule Add and group Add or group Negate group

Add and group Add or group

Example 2

In this example we will list all services that uses the check command "check_tcp"

Manual Input: [services] check_command ~~ "check_tcp"

Graphical input

services

and filter group

check_command	matching regexp, case insensitive	check_tcp
---------------	-----------------------------------	-----------

Add rule Add and group Add or group Negate group

Add and group Add or group

Example 3

Here we would like to list all services that contains the description "www" and is not located on the vmware host "vmware1-sth".
(For this to work parent/child relationships must have been set)

Manual input: [services] description ~~ "www" and not (host.parents >= "vmware1-sth")

Graphical input

services

and filter group

description	matching regexp, case insensitive	www
-------------	-----------------------------------	-----

AND

host.parents	contains	vmware1-sth
--------------	----------	-------------

Add rule Add and group Add or group Negate group

Add and group Add or group

Note that we use the **negate** (not) option on the host.parents rule.

Save filters

To save a filter, you need to enter a name and click on **save filter** in the filter dialog.

Filter Name Save Filter Make global

Manual input

[hosts] all

To make the filter global, accessible for everyone, select **Make global** before you save the filter.
Save filters are accessible from the filter menu.

The screenshot shows a sidebar with host names like 'Hosts', 'x_stats', 'i_license', '5-149-91.compute-tws.com', 'op5.com', 'plugins-host', and 'dev.op5.com'. To the right is a list of filter categories under 'Manage And View Filters': Acknowledged Hosts, Acknowledged Services, Host Groups With Problems, Reference Monitor Hosts, Reference Services, Services - CRITICAL, Services - Graphs Only, Services - OK, Services - WARNING, and Service Groups With. A 'Save filter' button is visible at the bottom of the list.

Remove filters

Remove a saved filter by selecting **Manage and view filters** from the filters menu.



Use the delete icon behind the filter that you would like to remove.



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- About
- Edit filter
- Categories
- Filter Groups
- Rule
- Examples
 - Example 1
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 - Example 3
- Save filters
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Listviews

About

Listviews are all views that lists host, services, hostgroups etc.

Hosts		Hosts:		Services:									
	Name	Alias		Status	Actions	Last Checked	#	Duration	Information				
<input type="checkbox"/>	VQ - Site 2	VQ - Site 2			2013-04-24 13:48:07	13d 17h 42m 1s	6	OK - 127.0.0.1 responds to ICMP, Packet 1, rt 0.010ms	5 4 1				
<input type="checkbox"/>	acme-soc1	Acme SOC 1			2013-04-24 13:48:14	13d 17h 39m 51s	6	OK - 127.0.0.1 responds to ICMP, Packet 1, rt 0.014ms	2 2				
<input type="checkbox"/>	acme-soc2	Acme SOC 2			2013-04-24 13:48:14	13d 17h 38m 59s	6	OK - 127.0.0.1 responds to ICMP, Packet 1, rt 0.016ms	1 1				
<input type="checkbox"/>	amazon-ec2-vm	Amazon EC2 Instance Ubuntu 12.04 (Oregon)			2013-04-24 13:48:12	5d 1h 41m 16s	6	TCP OK - 0.196 second response time on port 5606	8 9				

The contents of the lists is defined by filters, see [Filters](#).

The listview is divided into two parts. One is the top banner that includes a summary of the content in the listview and the other one is the content itself.

The following views, or tables, uses listviews

- Hosts Details
- Services Details
- Hostgroup Summary
- Servicegroup Summary
- Comments
- Scheduled Downtime
- Contacts
- Notifications
- Saved filters

Table of Content

- [About](#)
- [Columns](#)
 - Column list
 - Custom columns
- [More information](#)

Columns

The different columns in the content can be set under [My Account](#) in the [Configuration](#) menu.

My Account

The different tables can have its own set of columns.

To change what columns to show in a table change default to a list of the columns that you want to see.

Columns in list view	
Table Hosts	default
Table Services	default
Table Hostgroups	default

For example if you would like to view only Status, Host name, Service name and the state in the service-view, you need to enter:
host_state,host_name,description,state

Table Services	host_state,host_name,description,state
----------------	--

It is also possible to hide one column by using a "-" before the column that you would like to remove from the table. If you want to hide the attempts column enter:

default, -attempt

Table Services	default, -attempt
----------------	-------------------

Column list

Hosts

Column	Description
select	The select checkbox for the host-object
state	The state of the host. UP, DOWN, UNREACHABLE or PENDING.
name	The hostname
alias	The alias of the host
status	The column where comments, graphs and notification status is shown
action	Links to configuration, extra host notes etc.
last_check	The date and time when the host was last checked
duration	Time for how long the host has been in its current state
status_information	The output from the last check command
services_num_all	Total number of services on the host
services_num_warning	Total number of services on the host in state WARNING
services_num_critical	Total number of services on the host in state CRITICAL
services_num_unknown	Total number of services on the host in state UNKNOWN
services_num_pending	Total number of services on the host in state PENDING

Services

Column	Description
host_state	The state of the host on which the service is located
host_name	The name of the host on which the service is located
select	The select checkbox for the service-object
state	The state of the service. OK, WARNING, CRITICAL, UNKNOWN or PENDING
description	The description (name) of the service-check
status	The column where comments, graphs and notification status is shown
action	Links to configuration, extra service notes etc.
last_check	The date and time when the service was last checked
duration	Time for how long the service has been in its current state
attempt	The number of attempts needed before a notification is sent out.
status_information	The output from the last check command

Host groups

Column	Description
name	The name of the hostgroup
actions	Links to hostgroup commands
host_status_summary	Shows the total number of hosts and its states in the hostgroup
service_status_summary	Shows the total number of services in the hostgroup and their states

Service groups

Column	Description
name	The name of the servicegroup
actions	Links to servicegroup commands
service_status_summary	Shows the total number of services in the servicegroup and it states

Comments

Column	Description
select	Select checkbox for the comment
id	ID of the comment
object_type	Show the object type for the comment. Host or Service
host_state	The state of the host on which the comment is located
host_name	The name of the host on which the comment is located
service_state	The state of the service on which the comment is located
service_description	The name of the service on which the comment is located
entry_time	The submission date and time of the comment
author	Shows the author of the comment
comment	The comment itself.
persistent	Shows if the comment is persistent or not
expires	The time and date when the comment expires
actions	The action for the comment, delete comment

Downtimes

Column	Description
select	Select checkbox for the scheduled downtime entry
id	ID of the scheduled downtime entry
object_type	Show the object type affected by the scheduled downtime. Host or Service
host_state	The current state of the host on which the scheduled downtime is located
host_name	The name of the host on which the scheduled downtime is located
service_state	The current state of the service on which the scheduled downtime is located
service_description	The name of the service on which the scheduled downtime is located
entry_time	When the scheduled downtime was created
author	Shows by whom the scheduled downtime was created.
comment	The comment of the scheduled downtime.
start_time	Date and time for when the objects enter the scheduled downtime
end_time	Date and time for when the objects exit the scheduled downtime
actions	The action for the comment, delete comment

type	Shows if the scheduled downtime is fixed or flexible
duration	Shows how long the object will be in scheduled downtime if flexible schedule is used.
triggered_by	Shows if the scheduled downtime is triggered by another event.
actions	The action for the scheduled downtime. Remove is the only action available for scheduled downtime.

Contacts

Column	Description
name	The contacts name
alias	The contacts alias

Notifications

Column	Description
state	The state (OK, WARNING, DOWN etc.) of the object in the notification
host_name	The hosts name in the notification
service_description	The name of the service in the notification. Only valid for service notification
time	The date and time of the notification
contact	To which contact the notification was sent
notification_command	Shows which notification command that was used for the notification
status_information	The check command output from the check

Saved filters

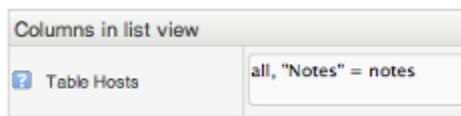
Column	Description
icon	Shows the designated icon for the filter
scope	Shows if the filter is a global filter or a personal filter
name	The name of the filter
owner	Shows who created the filter
actions	Action for the filter, only delete is available

Custom columns

It is possible to create a custom column if the column isn't available from the standard columns.

The format is "<label>" = <data> where <data> is the source of the data, for example if you would like to create a column that show the note of a host set in the configuration:

"Notes" = notes



It is also possible to fetch. For example the host notes on a service as well, by using the host.notes label.

Links in custom columns

It is also possible to add HTML code into the column. Let's say that you have a note with an ID that corresponds to the system in your CMS database and you would like to create a link directly to that object.

```
"Asset ID" = "<a href=\"http://inventory.example.org/?asset=" + notes + "\">Asset " + notes + "</a>"
```

Columns in list view	
Table Hosts	all, "Asset ID" = "Asset " + notes + ""

Custom variables

To show a custom variable in a column use the format `custom_variable.<VARIABLE_NAME>`. The custom variable should be used without the underscore prefix. Using the same example as above, but this time we have the ID in a custom variable called **ASSETID**

```
"Asset ID" = "<a href=\"http://inventory.example.org/?asset=" + custom_variables.ASSETID + "\">Asset " + custom_variables.ASSETID + "</a>"
```

More information

List views support POSIX extended regular expressions as supported by MK Livestatus. For more information, see <http://mathias-kettner.de>

Multiple host and service commands

About

Multiple commands is used to apply a single command to one or more host or services at the same time.

In almost every view in the monitoring section you may perform commands on the objects displayed in the view. This is very useful if you, for instance, have a bigger problem with one or many services and you want to acknowledge all of them at once.

Table of Content
<ul style="list-style-type: none">• About• Multiple host commands list• Multiple service commands list• Example<ul style="list-style-type: none">• Execute multiple commands

Multiple host commands list

- Schedule downtime
- Cancel Scheduled downtime
- Acknowledge
- Remove problem acknowledgement
- Disable host notifications
- Enable host notifications
- Disable notifications for all services
- Disable Active checks
- Enable Active checks
- Reschedule host check
- Add host comment
- Delete host

Multiple service commands list

- Schedule downtime
- Cancel Scheduled downtime
- Acknowledge
- Remove problem acknowledgement
- Disable service notifications
- Enable service notifications
- Disable Active checks
- Enable Active checks
- Reschedule service check
- Add service comment
- Delete Service(s)

Example

In this example we will send acknowledgements to a larger number of services.

Execute multiple commands

Open up **Unhandled problems** filter under the filter menu.

	linux-server1			DNS			13/03/2013 13:20:26
		<input type="checkbox"/>		Disk usage /			13/03/2013 13:24:48
		<input checked="" type="checkbox"/>		FTP			13/03/2013 13:21:39
		<input type="checkbox"/>		HTTP			13/03/2013 13:20:17
		<input checked="" type="checkbox"/>		NTP			13/03/2013 13:24:29

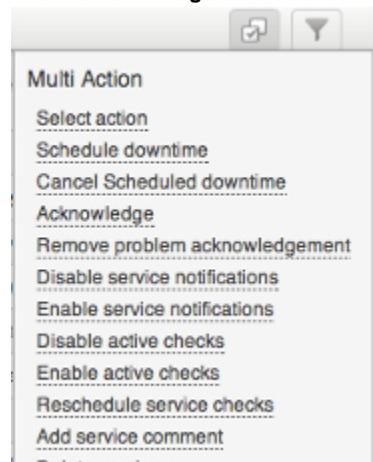
Select the services problems you like to acknowledge.

Click **Send Multi Action** below the search field



(It is located on top of the list.)

Chose **Acknowledge** in **Select Action** menu.



Type in a comment and click **Submit**.

Service	<input type="text" value="demo-poller;Cron process
demo-poller;Current users
demo-poller;Disk usage /"/>
Sticky	<input checked="" type="checkbox"/>
Notify	<input checked="" type="checkbox"/>
Persistent	<input checked="" type="checkbox"/>
Author	osandstrom
Comment	<input type="text"/>
	<input type="button" value="Submit"/> <input type="button" value="Reset"/>

Navigation

About

The GUI in op5 Monitor is built to be as simple as possible to use.
In this chapter the different parts of the GUI is described.

In-line help

A manual is great but sometimes you only need to get a fast answer about a special part of op5 Monitor.

Get information from the in-line help

Click the help icon 
 This gives you a small frame containing the help text.
 Click anywhere outside the help text to hide it.

Login and logout

Logging in to op5 Monitor

First of all you need to login before you can start using op5 Monitor.
 To login to the op5 Monitor GUI:
 Point your browser to the portal page of your op5 Monitor server (<https://yourserver/>)

Click op5 Monitor.



Username	<input type="text"/>
Password	<input type="password"/>
Login method	<input type="button" value="Default"/>
	<input type="button" value="Login"/>

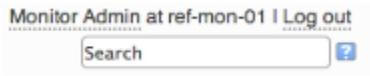
Enter login and password.

Click **Login**

 The default username is: monitor
The default password is: monitor

Logging out from op5 Monitor

To logout from op5 Monitor just click **Log out** in the upper right corner of the GUI.



Main menu

The navigation in op5 Monitor is simple and can be found in the top of the GUI. There are five main sections, seen from the left.

- About
- Monitoring
- Reporting
- Saved Filters
- Configuration



There are also five quickbar buttons.

- Refresh
- Settings
- Unhandled problems
- Tactical Overview
- Manage quickbar



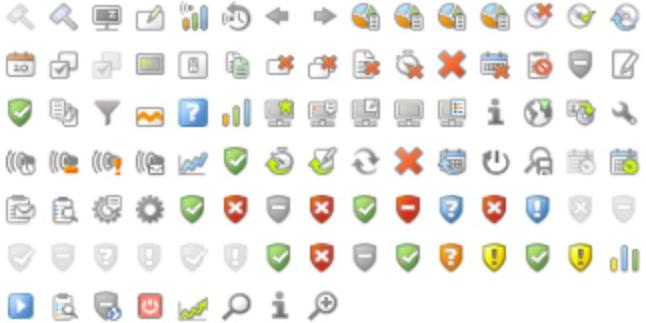
Add custom quickbar link

To add a custom link to the quickbar menu select the small manage quickbar menu icon to right of the quickbar.



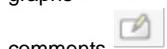
Add the URI, name and icon for your custom link

Add new quicklink

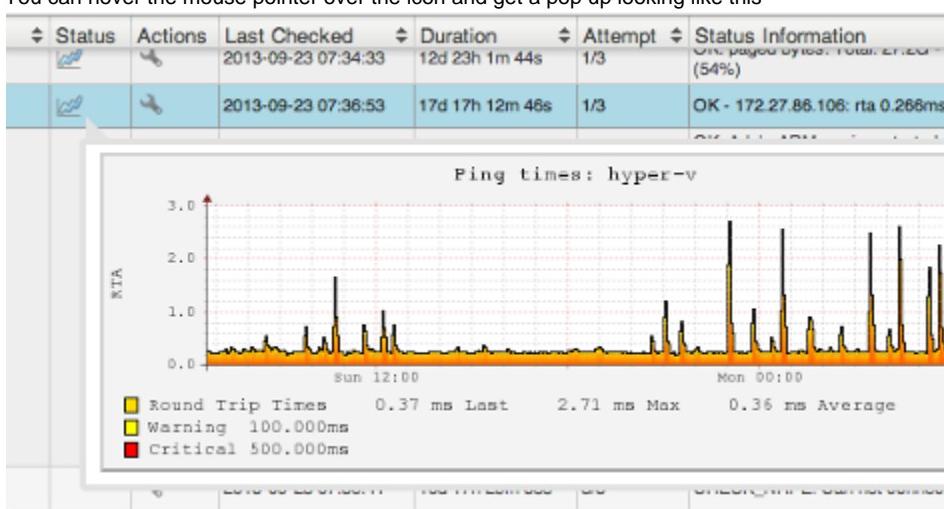
URI:	<input type="text"/>
Title:	<input type="text"/>
Open in:	This window
Icon:	
Icon:	
Remove selected quicklinks:	
<input type="button" value="Save"/>	

Pop up graphs and comments

In every view where you find the icons for

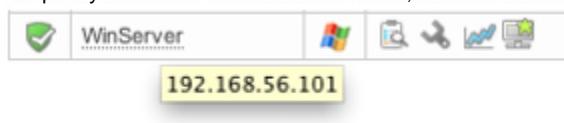


You can hover the mouse pointer over the icon and get a pop up looking like this



Mouse over host

To quickly show the host address of a host, hold the mouse over the hostname. A pop-up will appear with the host address.



Keyboard commands

The keyboard commands are shortcuts to some of the features in the op5 Monitor GUI. The following keyboard commands are available:

- search
- pause
- paging forward
- paging back

Default keyboards commands

Function	Default command	Description
Search	Alt+Shift+f	Set focus to the search field of the GUI.
Pause	Alt+Shift+p	Pause or activate the refresh of all the listviews in the GUI. Pause will be valid as long as you are navigating on "list views" only. Go to host or service extinfo, configure or any other non "list view" page and then the pause will be back to normal.
Paging forward	Alt+Shift+left	Takes you to the left in a view that has more than one page.
Paging back	Alt+Shift+right	Takes you to the right in a view that has more than one page.

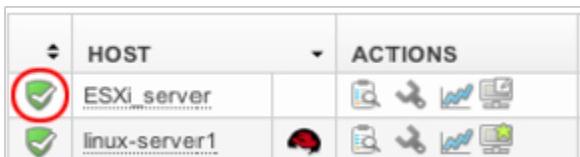
By default the keyboard commands are disabled. To enable the keyboard commands and change their settings take a look at [Keyboard commands used in the GUI](#).

Table of Content
<ul style="list-style-type: none"> • About • In-line help <ul style="list-style-type: none"> • Get information from the in-line help • Login and logout <ul style="list-style-type: none"> • Logging in to op5 Monitor • Main menu • Add custom quickbar link • Pop up graphs and comments • Mouse over host • Keyboard commands <ul style="list-style-type: none"> • Default keyboards commands

Quick Action Menu

About

For quick access to some host and service commands you can access the Quick action menu. The menu can be accessed through right clicking on the status icon in front of a host or service.



This menu will only appear if you are 'Authorized for system commands', this is set under User Rights in the configuration, see [Authorization](#).

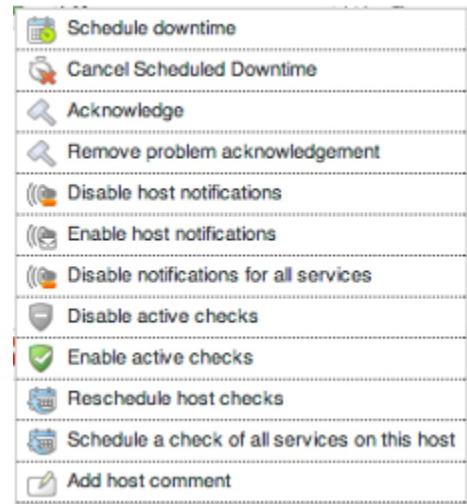
Table of Content

- About
- Host Actions
- Service Actions

Host Actions

The actions accessible from the host quick access menu are:

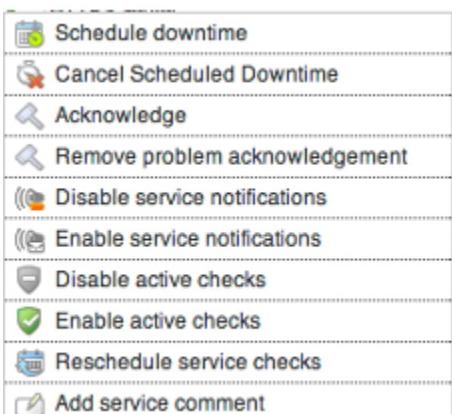
- Schedule Downtime
- Cancel Schedule downtime
- Acknowledge
- Remove problem acknowledgement
- Disable host notifications
- Enable host notifications
- Disable notifications for all services
- Disable active checks
- Enable active checks
- Reschedule host check
- Schedule a check for all services on this host
- Add host comment



Service Actions

The actions that are available on a service quick access menu are:

- Schedule Downtime
- Cancel Schedule downtime
- Acknowledge
- Remove problem acknowledgement
- Disable/Enable service notifications
- Disable/Enable active checks
- Reschedule service check
- Add service comment



Refresh time

About

Every view is automatically refreshed after a certain time.
The default Global refresh time for listviews is 90 seconds.

Table of Content

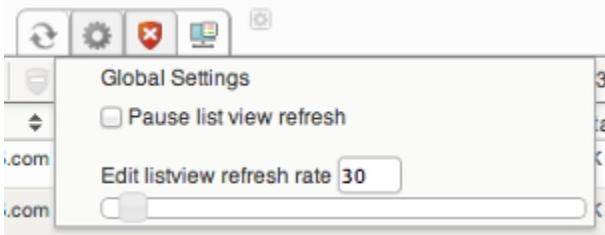
- About
- Pausing the page refresh
- Editing the refresh time

Pausing the page refresh

Click **Settings** in the quickbar of the menu:

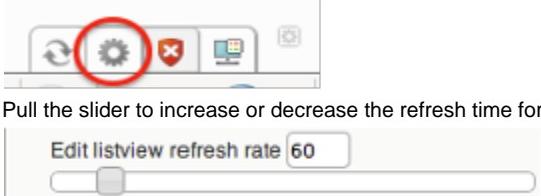


Check the **Pause list view refresh** check box and the Global refresh time is paused. Pause will be valid as long as you are navigating on "list views" only. Go to host or service extinfo, configure or any other non "list view" page and then the pause is back to normal.



Editing the refresh time

Click on the **Settings** icon in the quickbar menu:



Pull the slider to increase or decrease the refresh time for listviews.

Edit listview refresh rate 60



Once you have edited the Global refresh time a little notice will show up in the GUI. It tells you that the new Global refresh time is saved and looks like the picture below.

Refresh will be valid as long as you are navigating on "list views" only. Go to host or service extinfo, configure or any other non "list view" page and then the refresh is back to default.

The new refresh time will be your new default meaning that the next time you go to a listview or next time you login the listview will have your last refresh time.

Searching

About

op5 Monitor has got a search functionality that makes it easy to find:

- Hosts
- Services
- Host groups
- Service groups
- Notes
- Status information

The search is case insensitive. The quick result in search field is limited to maximum 10 result rows per object type.

In the upper right corner of the GUI you find the search input field:



Table of Content

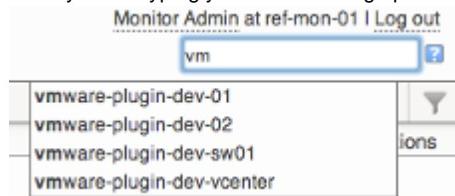
- About
- Simple search
- Advanced search
 - Advanced search examples
- Notes search
- Limiting the number of result objects
- Search result
 - Multiple actions

Simple search

To perform a simple search

Enter the search string in the search input field in the top right corner.

While you are typing your search string op5 Monitor will show you a list of hosts matching the string.



If you click on a host in the drop down list you will be redirected to the **Service Status Details For Host** page for the host you clicked on.

The same happens if the search found only one object matching your search string.

op5 Monitor will search for hosts, services, service groups, host groups and notes matching the search string you entered.

The table below shows a list of in what parts of the object types is used in the search.

Object type	Variable
Host	host_name host_alias host_address display_name
Service	service_description display_name
Host group	hostgroup_name alias
Service group	servicegroup_name alias
Notes	Host notes Service notes
Status Information	

Advanced search

To make your search more specific you should use the advanced search features.

The following table describes the search parameters that can be used in the search function:

Short parameter	Long parameter	Description
h:	host:	Search for hosts
s:	service:	Search for services
hg:	hostgroup:	Search for host groups
sg:	servicegroup:	Search for service groups
si:	statusinformation:	Search for Status information using the output from the latest service / host check.
AND		The AND operator is used to filter records based on more than one condition
OR		The OR operator is used to filter records based on more than one condition

Remember to not use any space between the : and the search string

Advanced search examples

Search for hosts containing a certain string in the host name.

If you want to search for hosts only containing "server" in the host name

just enter the following in the search field:

```
h:server  
or  
host:server
```

Press **enter** to perform the search.

Perform a search combining both hosts and services in the query.

In this example we want to find all services called either ping or http running on hosts called something like win or linux.

The query would then be:

```
h:win OR linux AND s:ping OR http
```

Search for Status Information

To search for hosts and services having a certain string in their status output you shall write a query like this:

```
si:Connection refused
```

By using the si: search term you will search the output from the latest check.

Show all hosts or services

You may also get a list of all services and all hosts from the search function.

To get a list showing all services and host you should write the search query like this:

```
s:% OR h:%
```

Show all hosts, services, host groups and service groups

To get a complete list of all hosts, services, host groups and service groups you only need to write a query like this:

```
%
```

This will give you a result with all object types grouped in one page.

Notes search

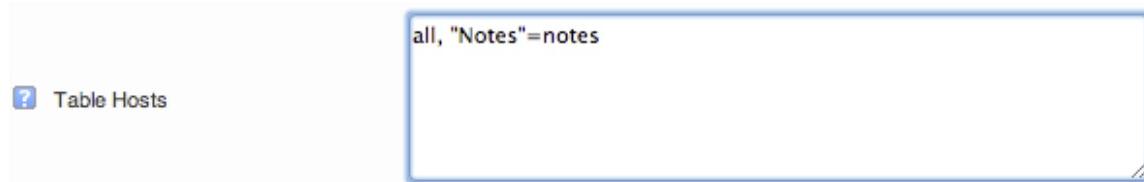
To search for notes the notes column must be added to the listview.

Go to **My Account** under the Configuration menu.



Add the following to the table for hosts and/or services.

"Notes" = notes



It is also possible to fetch for example the host notes on a service as well, by using the host.notes label.

Limiting the number of result objects

The default search result will be limited to 100 rows. This can be changed in the search query.

To change the limitation you only need to add limit with the number of lines to your query like this:

```
limit=10
```

The line above will give you max 10 rows in the search result.

To return all rows set:

```
limit=0
```

Search result

No matter if you use the simple or the advanced way to do your search you will end up with the same type of result list. As you can see in the search result example below the search will be shown with one part for each type of object.

Hosts							
	Name	Alias	Status	Actions	Last Checked	Duration	Status Info
	citycloud-vm	Windows 2008 Datacenter			2013-04-11 08:38:58	8h 34m 3s	TCP OK - 0.00ms
	hyper-v	Windows Hyper-V			2013-04-11 08:36:56	12h 30m 35s	OK - 172.21ms
	windows-gbg	Windows Server 2008 Standard [dev-env and MSSQL-server]			2013-04-11 08:38:27	12h 30m 28s	OK - 172.21ms
	windows-sth	DC Stockholm			2013-04-11 08:40:31	4h 30m 26s	OK - windows 1, nt 0.163s

Services							
	Host Name	Service	Status	Actions	Last Checked	Duration	Attempt
	citycloud-vm	CPU Load			2013-04-11 08:40:12	12h 30m 44s	1/3
		DNS Service			2013-04-11 08:40:36	0h 30m 22s	1/3
		Disk Queue Length			2013-04-11 08:40:57	5h 28m 59s	1/3
		Disk usage C:			2013-04-11 08:38:27	8h 29m 32s	1/3

Just like in the normal views you can sort almost all columns in the search result.

Multiple actions

To do multiple actions from the search result the search result must first be viewed in listview.
To view the result in listview click on **View in listview** below each category.

	windows-sth	DC Stockholm
View in listview		

Tactical overview

About

The Tactical Overview is a personal view where widgets can be placed to show different information.

A link to the Tactical overview is located in the quick menu on the top.



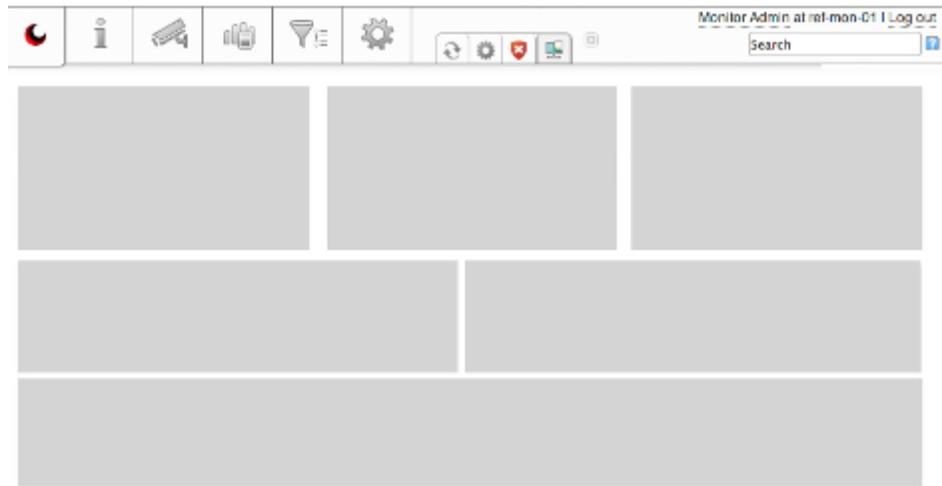
Table of Content
<ul style="list-style-type: none"> • About • Layout • Widgets

Layout

The layout of the tactical overview is split in to three sections with different size of the widget width.

The first section is split into three columns, each column can contain one widget.

The second section contains two columns and the third is one column.



Widgets

Widgets are covered in [Widgets chapter](#).

Widgets

About

Widgets are used to give the user a ability to personalize the **Tactical Overview** display status data to their needs. The first thing you will see when you login to op5 Monitor is the **Tactical overview** and it looks like this:

The screenshot shows the op5 Monitor's Tactical Overview page with the following components:

- Network health:** A large green bar indicating 100% host status and a red bar indicating 88.45% service status.
- Monitoring Performance:** A table showing Service Check Execution Time (0.0178-2477.02sec), Service Check Latency (0.0070-037.001sec), Host Check Execution Time (0.0070-257.00sec), Host Check Latency (0.0070-0017.00sec), Active Host / Service Checks (16/42), and # Passive User / Service Checks (0/1).
- Disabled checks:** A list showing two disabled checks: #0: ipo (Last alive: 2014-03-16 10:01:00) and #0: ref-rsync-02 (Last alive: 2014-03-16 10:01:00).
- Merlin node status:** A table showing Merlin node status for ipo and ref-rsync-02, including Last alive, Checks (n/s), and Latency.
- Nagvis:** A map titled "Reference system services" showing a network topology with nodes labeled "OK" (green checkmark), "WARNING" (yellow shield), and "CRITICAL" (red X).
- Monitoring features:** A section with tabs for Map Detection, Notifications, Event Handlers, Active Checks, and Passive Checks, each with sub-options and icons for service status (All Services Enabled, All Services Disabled, etc.).

In the Tactical Overview you may:

- move around the widgets to different places
- close the widgets
- set individual refresh time for each widget
- collapse and expand all individual widgets.
- create another instance of the widget
- scale the widgets over multiple columns

All changes you make with the widgets are saved per user.

Table of Content

- About
- Widget parts
 - Renaming the widget header
 - Collapse and expand
 - Widget settings
 - Extended widget settings
 - Closing widgets 1
 - Closing widgets 2
 - Multiple instances
- Moving widgets
 - To move a widget from one section an other
- Restoring to factory settings
- Create you own widgets

Widget list

op5 Monitor comes with a number of available widgets used to display data in Tactical Overview:

- Unacknowledged Service Problems
- Scheduled Downtime
- Acknowledged Service Problems
- Nagvis
- Disabled Checks
- Services
- Host Performance
- Merlin Node Status
- Acknowledged Problems
- Monitoring Performance
- Hosts
- Network Health
- Monitoring Features
- Unhandled Problems
- Business Processes
- Network Outages
- Geomap

Beside this wide range of widgets you can find additional widgets on [www.op5.org], or create a own widget that fits your needs. This is described in "op5 Monitor Administrators Manual".

Widget parts

Below you see an example of what a widget can look like:



The following table describes the parts of a widget shown in the picture above.

Nr	Description
1	Widget header
2	Copy Widget
3	Collapse and Expand icon
4	Widget settings icon
5	Widget content
6	Hide widget

Renaming the widget header

The widget header displays the name of the widget.

To change the name in the widget header

Double click on the name in the widget header.
Type the new name in the text field.
Click **OK** to save the new name.

Collapse and expand

If you want to hide the content of a widget but still keep it on the **Tactical overview** page just click on the **Collapse icon**.



To show the widget again

Click on the **Expand icon**.

Widget settings

In this version of op5 Monitor the only setting you can change on a widget is refresh time

To set the refresh time on an individual widget follow the instructions below:

1. Click **Widget settings icon**
2. Move the slider to increase or decrease the refresh time.



Extended widget settings

As described in [Multiple instances](#) it is possible to create multiple copies of a widget.
This can be useful with some of the widgets we ship with op5 Monitor such as "Unacknowledged Service problems".

This widget displays the content of "Unhandled Problems" as default, but can be configured to use filters to display status information from servicegroups, and it is also possible to filter on the following statuses:

- Warning
- Critical
- Unknown
- Hard
- Backlog

Besides the standard Status filters: "Warning, Critical, Unknown", Hard and Backlog are present.

With **Hard** you can select to only filter on HARD status and discard all SOFT states. This is the default setting when op5 Monitor sends notifications.

Backlog is a little more complicated. This setting can be useful if **Tactical overview** is displayed on a screen as a NOC-dashboard to monitor the status of hosts and services.

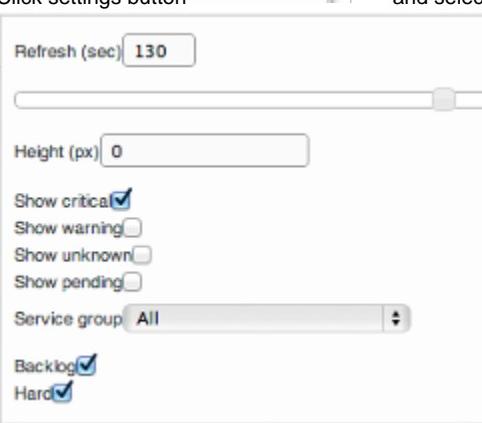
When the Backlog setting is used the widget will display all the problems that have been reported since your last login, even if these problems has been resolved.

To remove a problem when the backlog setting is activated you must either acknowledge the problem, or click the "X" button to remove it form the list.

The backlog setting is global and affects all users

In the following example we will choose to display all the critical problems in HARD-state from the servicegroup "Web Services":

Click settings button  and select a servicegroup:



Refresh (sec) 130

Height (px) 0

Show critical

Show warning

Show unknown

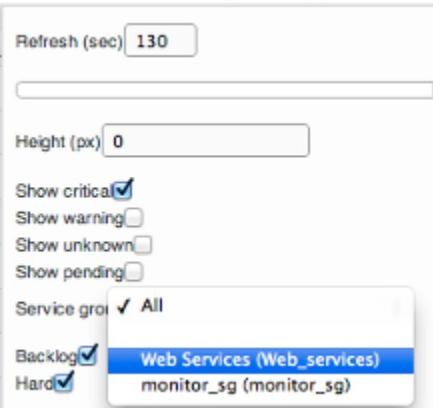
Show pending

Service group All

Backlog

Hard

Select the servicegroup you want to monitor with the widget:



Refresh (sec) 130

Height (px) 0

Show critical

Show warning

Show unknown

Show pending

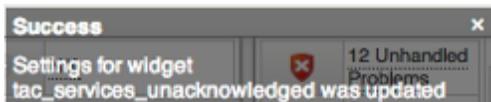
Service group All

Backlog

Web Services (Web_services)

monitor_sg (monitor_sg)

When you have applied your settings a notification will be displayed in the top right corner showing that the settings are saved.



The widget displays the current CRITICAL services for the selected servicegroup.

Unacknowledged service problems						
HOST	SERVICE	ACTIONS	LAST CHECK	ALERT TIME	STATUS INFORMATION	
www.op5.org	HTTPS Server		2012-03-22 15:10:16	2012-03-19 16:38:16	CRITICAL - Cannot make SSL connection	

Closing widgets 1

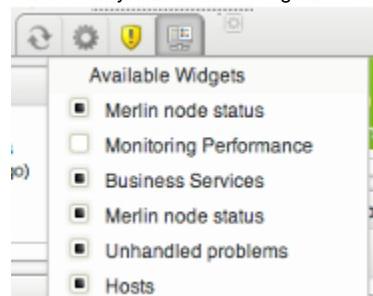
You may close one or more widgets from the Tactical overview.

Just click on the **Close widget icon** to close the widget completely from the Tactical overview.



Closing widgets 2

Another way to close the widgets from the Tactical overview is to click on the **Page settings icon**.



And then you just uncheck the widget you want to hide from the list.

The widget will only be visually removed from the Tactical overview. It will not be removed from the software.

Multiple instances

It is possible to create multiple instances of a widget. This can be useful to display different datasources in widgets, such as status of a servicegroup or critical unacknowledged problems.

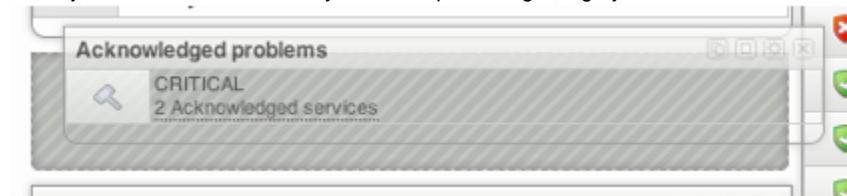
To create another instance of a widget: Click the copy button on a widget . This will create an identical copy of the widget.

Moving widgets

You may move around the widgets shown in the Tactical overview as you like.

To move a widget from one section an other

Grab, by clicking on the top bar and holding down the mouse button, the widget and move it to the section you like to place it in. When you hover a section where you can drop the widget, a gray area will show where the widget will be placed:



Restoring to factory settings

To restore the Tactical overview to factory (default) settings



1. Click **Widget settings icon**.
2. Click on the **Restore to factory settings** button and all widgets will

- be placed back to their original places
- get their default refresh time set
- be made visible again
- be expanded.

Create your own widgets

You may build your own widgets but this is not a subject for this user manual.
You can read more about how to build your own widget in the op5 Monitor Administrator manual.